

~~A11101 565485~~

**NASA
Reference
Publication
1102**

**NBSIR
82-1672**

April 1983

**NBS
PUBLICATIONS**

NATL INST. OF STAND & TECH



A11106 979126

Transport Properties of Oxygen

H. M. Roder



QC
100
U56
82-1672
1983
C.2

NSA



25th Anniversary
1958-1983



MAY 31 1983

notacc- circ.
QC 100
u976
80-1570
1403
c.2

NASA
Reference
Publication
1102

NBSIR
82-1672

1983

Transport Properties of Oxygen

H. M. Roder

*Thermophysical Properties Division
National Engineering Laboratory
National Bureau of Standards
Boulder, Colorado*

Prepared for NASA Lewis Research Center

NASA

National Aeronautics
and Space Administration

Scientific and Technical
Information Branch

Contents

| | Page |
|---|------|
| 1. Introduction | 1 |
| 2. Representation of the Viscosity | 3 |
| 3. Representation of the Thermal Conductivity | 4 |
| 3.1 Calculations for Region 1 | 7 |
| 3.2 Calculations for Region 2 | 8 |
| 3.3 Boundaries for Regions 1 and 2 | 9 |
| 4. Representation of the Thermal Diffusivity | 9 |
| 5. Prandtl Number | 11 |
| 6. Description of the Data Tables | 13 |
| 7. Error Estimates | 14 |
| 8. Summary | 15 |
| 9. References | 16 |
| Appendix A. Program Listings for Viscosity | 80 |
| Appendix B. Program Listings for Thermal Conductivity | 81 |
| Appendix C. Conversion Factors, Oxygen | 83 |

List of Figures

| | |
|--|---|
| Figure 1. Region of the PVT surface covered by the new thermal conductivity measurements [8] | 6 |
|--|---|

List of Tables

| | |
|---|----|
| Table 1. Overview of Previous Publications | 2 |
| Table 2. Thermal Conductivities near 162.9805 K | 10 |
| Table 3. Thermal Conductivities from Lightscattering, Weber [9] | 12 |
| Table 4. Transport Properties of Oxygen for saturated Liquid and Vapor, SI Units | 17 |
| Table 5. Transport Properties of Oxygen, Isobars, SI Units | 18 |
| Table 6. Transport properties of Oxygen for saturated Liquid and Vapor, Engr. Units | 50 |
| Table 7. Transport Properties of Oxygen, Isobars, Engr. Units | 52 |

TRANSPORT PROPERTIES OF OXYGEN

H. M. Roder

Thermophysical Properties Division
National Engineering Laboratory
National Bureau of Standards
Boulder, Colorado 80303

1. Introduction

An accurate thermophysical properties base for fluid oxygen has been developed through a series of measurements and analyses. Table 1 presents a chronology of prior publications which contain equations of state, correlations of the transport properties, data tables for the transport properties, or a combination of these items. Table 1 shows that the massive set of tables for oxygen in NASA SP 3071 [2] has gradually been extended and superseded by new measurements and new correlations. Specifically there have been new experimental measurements of viscosity [4], a new correlation of viscosity and thermal conductivity [3], an extension of the PVT measurements from 34 MPa (5000 psia) to 80 MPa (12000 psia) [5], a new equation of state which includes the extension in pressure [6], the development of an interactive package for the equation of state [7], new experimental thermal conductivity measurements [8], and new experimental thermal diffusivity measurements near the critical point [9]. The present tables were computed because previous tables of the transport properties of oxygen extend to only 34 MPa (5000 psia), and because for thermal conductivity the new measurements [8,9] show the previously best correlation [3] to be in error by up to 35 percent for nearly all temperatures at the highest pressures.

Table 1. Overview of Previous Publications

| Reference | Year | PVT | | Transport | | Properties | Notes |
|---|------|-----------------------|---------------------------------------|-------------------|-------------|------------|--|
| | | Equation | Data Tables | Equations | Data Tables | | |
| [1] NBS Tech. Note 384 | 1971 | polynomial | isobars to 5000 psia | yes | yes | | temperature range triple point to 340 K |
| [2] NASA SP 3071 | 1972 | polynomial | isobars to 340 atm and 5000 psia | ref. 1 | yes | | |
| [3] J. Phys. Chem. Ref. Data | 1974 | mod. BWR | no | new | yes | | new correlation of transport properties |
| [4] Physica | 1977 | ref. 3 | no | ref. 3 | no | | uses the data of [4] new viscosity measurements |
| [5] NASA RP 1011 | 1977 | polynomial | isobars to 1000 bar and 15000 psia | no | no | | incorporates new PVT data to 800 bar |
| [6] NBS IR 78-882 | 1978 | mod. BWR | no | ref. 3 | no | | incorporates revised transport property correlations. |
| [7] NBS Tech. Note 1025 | 1980 | mod. BWR | no | ref. 3 | no | | incorporates BWR into "Fluids Pack" |
| [8] J. Res. NBS (in press) | 1982 | ref. 7 | no | new | no | | new thermal conductivity measurements |
| [9] Int. J. Thermophysics (in press) | 1982 | poly. and mod. BWR | no | no | no | | new thermal diffusivity measurements |
| present report | 1982 | mod. BWR | isobars to 100 MPa and 15000 psia | ref. 3 and new | yes | | incorporates new thermal conductivity data |

1.5 #2
1982
PVT

2. Representation of the Viscosity

Values of the viscosity are calculated from the correlation of Hanley, et al. [3]. For the correlation the authors surveyed the literature and systematically selected data which met particular criteria for accuracy. For oxygen the experimental measurements of Haynes [4] with an accuracy of 2 percent were selected. This set of data was measured with a torsionally oscillating quartz crystal, and it comprises some 200 points at temperatures from 75 to 300 K with pressures to 34 MPa. The correlation expresses viscosity in terms of density and temperature, and it requires an equation of state (EOS) to translate pressures into equivalent densities. The EOS most commonly used is the interactive package by McCarty [7]. The dependence of viscosity on temperature and density is expressed in [3] as

$$\eta(\rho, T) = \eta_0(T) + \eta_1(T)\rho + \Delta\eta(\rho, T) + \Delta\eta_c(\rho, T) \quad , \quad (1)$$

where

$$\begin{aligned} \eta_0 = & g_1 T^{-1} + g_2 T^{-2/3} + g_3 T^{-1/3} + g_4 + g_5 T^{1/3} + g_6 T^{2/3} + g_7 T \\ & + g_8 T^{4/3} + g_9 T^{5/3} \quad , \end{aligned} \quad (2)$$

and

$$\eta_1(T) = A + B [C - \ln(T/F)]^2 \quad , \quad (3)$$

and

$$\begin{aligned} \Delta\eta(\rho, T) = & D \exp[k_1 + k_2/T] \left\{ \exp[\rho^{0.1}(k_3 + k_4/T^{3/2}) \right. \\ & \left. + \theta \rho^{0.5}(k_5 + k_6/T + k_7/T^2)] - 1.0 \right\} \quad , \end{aligned} \quad (4)$$

where θ is a density dependent factor given by $\theta = (\rho - \rho_c)/\rho_c$.

While there is evidence for an enhancement of viscosity near the critical point, term 4 in eq (1), $\Delta\eta_c(\rho, T)$, is not considered in reference [3].* Program listings to calculate the viscosity [7] are given in appendix A. For completeness the values of the coefficients for eqs (2-4) are listed below. For these

* A full description of how to calculate $\Delta\eta_c(\rho, T)$ is given in reference [10].

coefficients the units implied are temperature in K, density in g/cm^3 , and viscosity in $\mu\text{g/cm}\cdot\text{s}$.

| Equation (2) | Equation (3) | Equation (4) |
|---------------------------------|------------------|--------------------------------|
| $g_1 = -9.7076378593\text{E}+1$ | $A = 4.352652$ | $D = 1.0 \mu\text{g/cm s}$ |
| $g_2 = 8.2801254201\text{E}+1$ | $B = - 2.036126$ | $k_1 = -12.15239$ |
| $g_3 = -2.4668758803\text{E}+1$ | $C = 1.4$ | $k_2 = 2.434069 \times 10^2$ |
| $g_4 = 2.1324360243$ | $F = 100.0$ | $k_3 = 18.20116$ |
| $g_5 = 3.7851049522\text{E}-1$ | | $k_4 = - 2.749896 \times 10^3$ |
| $g_6 = -1.0487216090\text{E}-1$ | | $k_5 = - 0.3142173$ |
| $g_7 = 1.1134441304\text{E}-2$ | | $k_6 = 1.191150 \times 10^2$ |
| $g_8 = -5.3676093757\text{E}-4$ | | $k_7 = 2.739043 \times 10^2$ |
| $g_9 = 1.0279379641\text{E}-5$ | | $\rho_c = 0.435 \text{g/cm}^3$ |

3. Representation of the Thermal Conductivity

Values of the thermal conductivity are calculated from the correlation of Roder [8]. This new correlation is based on new experimental measurements of the thermal conductivity [8] and new experimental measurements of the thermal diffusivity [9]. The new conductivity values [8] comprise 1126 points measured on 13 isotherms from 78 to 310 K with pressures to 70 MPa. The measurements were made with a new transient hot wire apparatus.

The new correlation expresses thermal conductivity as a function of density and temperature rather than temperature and pressure because over a wide range of experimental conditions the behavior of thermal conductivity is dominated by its density dependence. The technique requires an equation of state [7] to translate measured pressures into equivalent densities. The dependence of thermal conductivity on temperature and density is normally expressed as

$$\lambda(\rho,T) = \lambda_o(T) + \lambda_{\text{excess}}(\rho,T) + \Delta\lambda_{\text{critical}}(\rho,T) \quad (5)$$

The first term on the right of eq (1) is the dilute gas term which is independent of density. The second is the excess thermal conductivity. The first two terms taken together are sometimes called the "background" thermal conductivity. The final term is the critical point enhancement. The dilute gas term is expressed as

$$\lambda_0(T) = [A_1 T^{-1} + A_2 T^{-2/3} + A_3 T^{-1/3} + A_4 + A_5 T^{1/3} + A_6 T^{2/3} + A_7 T + A_8 T^{4/3} + A_9 T^{5/3}] / 1000 \quad (6)$$

with λ_0 in W/m·K and T in kelvin.

The expression used for the excess thermal conductivity is as follows:

$$\lambda_{\text{excess}}(\rho, T) = \alpha \rho + \delta [e^{\beta \rho^\gamma} - 1.0] \quad (7)$$

where the parameters α , β , γ , δ are functions of temperature as follows:

$$\begin{aligned} \alpha &= B_1 T & \gamma &= B_5 + B_6 T + B_7 T^2 \\ \beta &= B_2 + B_3 T + B_4 T^2 & \delta &= B_8 + B_9 T + B_{10} / T^2 \end{aligned} \quad (8)$$

The coefficients for eqs (6) and (7) with T in kelvins and λ in W/m·K are

| Equation (6) | Equation (7) |
|--------------------------|-----------------------|
| $A_1 = -2.0395052193E+5$ | $B_1 = .298644E-5$ |
| $A_2 = 2.4088141709E+5$ | $B_2 = .59842E+00$ |
| $A_3 = -1.2014175183E+5$ | $B_3 = .11362E-01$ |
| $A_4 = 3.295494919E+4$ | $B_4 = -.19520E-04$ |
| $A_5 = -5.4244239598E+3$ | $B_5 = .47624E+00$ |
| $A_6 = 5.4734865540E+2$ | $B_6 = -.64769E-03$ |
| $A_7 = -3.2854821539E+1$ | $B_7 = .83223E-06$ |
| $A_8 = 1.0753572103$ | $B_8 = -.278141E-4$ |
| $A_9 = -1.4610986820E-2$ | $B_9 = .153705E-6$ |
| | $B_{10} = .147176E+1$ |

The calculation of the third term in eq (5) is split into two separate regions which are shown in figure 1. The first region is called the critical region proper, and it corresponds roughly to the range of conditions for which Sengers, et al. [10] recommend the use of a scaled equation of state. The second region is called the extended critical region. It is shown as a triangle in figure 1

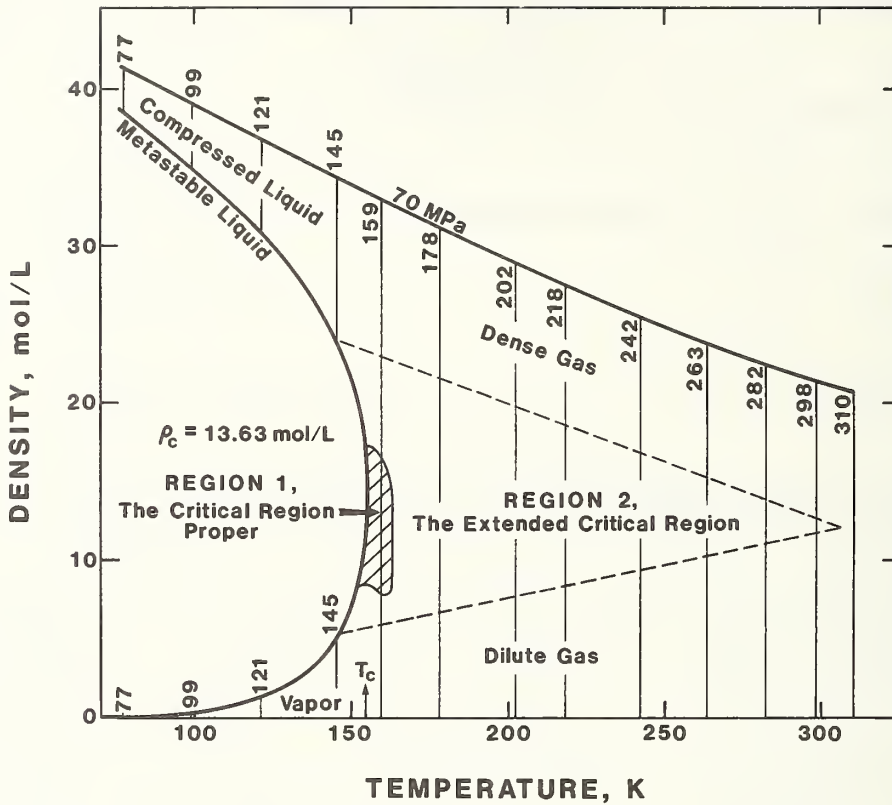


Figure 1. Region of the PVT surface covered by the new thermal conductivity measurements [8]. Also shown are regions 1 and 2 for the calculation of the critical point enhancement. The new thermal diffusivity measurements [9] are nearly all located in region 1.

and covers those densities and temperatures for which the new measurements [8] reveal an anomalous increase above the background conductivity.

3.1. Calculations for Region 1

We define the reduced variables $T^* = T/T_c$, $\rho^* = \rho/\rho_c$, $P^* = P/P_c$ and

$$\Delta T^* = (T - T_c)/T_c \quad \text{and} \quad \Delta \rho^* = (\rho - \rho_c)/\rho_c \quad (9)$$

The scaling variables are defined by

$$x = \Delta T^*/|\Delta \rho^*|^{1/\beta} \quad \text{and} \quad y = \frac{x + x_0}{x_0} \quad (10)$$

The symmetrized compressibility is defined by

$$\chi_T^* = |\Delta \rho^*|^{-\gamma/\beta} \left[\frac{[(1 + E)/(1 + Ey^{2\beta})]^{(\gamma - 1)/2\beta}}{D[\delta + (y - 1)(\delta - \beta^{-1} + Ey^{2\beta})/(1 + Ey^{2\beta})]} \right] \quad (11)$$

for which a special case occurs at the critical isochore where $\Delta \rho^* = 0$

$$\chi_T^* = \Gamma |\Delta T^*|^{-\gamma} \quad (12)$$

The coefficient Γ in eq (12) is defined by

$$\Gamma = \frac{x_0^\gamma}{D} \left(\frac{1 + E}{E} \right)^{(\gamma - 1)/2\beta} \quad (13)$$

Given the definitions above, Sengers, et al. [10] estimate the critical enhancement from

$$\Delta \lambda_{\text{critical}}(\rho, T) = \frac{\Lambda}{\Xi_0} \frac{k_B P_c}{6 \pi \eta} \left(\frac{T^*}{\rho^*} \right)^2 \left(\frac{\partial P^*}{\partial T^*} \right)_{\rho^*}^2 \chi_T^* (\gamma - \nu)/\gamma \rho^{*n} \exp \left[- \left\{ A_\lambda (\Delta T^*)^2 + B_\lambda (\Delta \rho^*)^4 \right\} \right] \quad (14)$$

This equation relates the thermal conductivity enhancement at a given temperature and density to the pressure coefficient $(\partial P/\partial T)_\rho$, the symmetrized compressibility χ_T and the (normal) shear viscosity η .

The values to be used with eqs (9-14) for oxygen are

| | | |
|---|--------------------------------|------------------|
| $T_c = 154.581 \text{ K}$ | $n = 0$ | $\beta = 0.355$ |
| $\rho_c = 13.63 \text{ mol/L}$ | $\Lambda = 1.04$ | $\gamma = 1.190$ |
| $P_c = 49.77054 \text{ atm}$ | $A_\lambda = 39.8$ | $\delta = 4.352$ |
| $k_B = 1.38054 \times 10^{-23} \text{ J/K}$ | $B_\lambda = 5.45$ | $D = 2.36$ |
| | $\Xi = 5.9783 \times 10^{-10}$ | $E = 0.287$ |
| | | $X_0 = 0.183$ |

The prescription given by Sengers, et al. [10] has been modified in two minor ways. First, the value of Λ adopted to be 1.02 for CO_2 in [10] is chosen to be 1.04 for oxygen. This number is established as a best value for Weber's new experimental diffusivity measurements [9], see section 4. The second modification is to extend the calculation using the scaled equation out to a temperature of 162.9805 K or 1.054 T_c rather than 1.03 T_c .

3.2. Calculations for Region 2

The expressions used in this region are as follows [8].

$$\Delta\lambda_{\text{critical}}(\rho, T) = \left\{ C_1/(T + C_2) + C_3 + C_4 T \right\} \cdot e^{-x^2} \quad (15)$$

we define

$$\rho_{\text{center}} = \rho_c + C_5(T - T_c)^{1.5}, \quad (16)$$

then the variable x in eq (15) is

$$x = C_6(\rho - \rho_{\text{center}}) \quad \text{for} \quad \rho > \rho_{\text{center}}, \quad (17)$$

and

$$x = C_6(\rho - \rho_{\text{center}}) + C_7(\rho - \rho_{\text{center}})^5 \quad \text{for} \quad \rho < \rho_{\text{center}}. \quad (18)$$

The coefficients for eqs (15-18) are

| | |
|--------------------------------|-----------------------------|
| $T_c = 154.581 \text{ K}$ | $C_4 = -.282950\text{E-}04$ |
| $\rho_c = 13.63 \text{ mol/L}$ | $C_5 = -.71599\text{E-}3$ |
| $C_1 = .219200\text{E+}0$ | $C_6 = .13804\text{E+}0$ |
| $C_2 = -145.55$ | $C_7 = .12980\text{E-}5$ |
| $C_3 = .734512\text{E-}02$ | |

3.3. Boundaries for Regions 1 and 2

The four boundaries defining the two different regions of computation are the saturated liquid and vapor at the lower temperature, 162.9805 K at the upper temperature, densities between 8.5 and 7.5 mol/L at the lower density, and densities between 18 and 13.6 mol/L at the upper density. The boundaries are shown in ρ - T coordinates in figure 1. For any given temperature between saturation and 162.9805 K the switch between regions 1 and 2 is accomplished without an abrupt change in the value of λ . This is done by switching at those densities where the calculated values of thermal conductivity from [8] and [10] are equal.

The switch in calculation at the upper temperature boundary of 162.9805 K can not, unfortunately, be accomplished without an abrupt change in the value of thermal conductivity. The reason for this is because in reference [10] the centering density is ρ_c by definition, whereas in reference [8] the centering density is less than ρ_c for all temperatures other than T_c . The maximum "glitch" along the 162.9805 K boundary is about 1.6 percent in the value of λ . The local change across this boundary is shown for densities from 0 to 30 mol/L in table 2.

Programs to calculate the thermal conductivity are new. Listings are given in appendix B. The changes required in the program set of reference [7] to implement the new thermal conductivity calculation are indicated in appendix B by arrows.

4. Representation of the Thermal Diffusivity

The thermal diffusivity is defined by

$$\alpha \equiv \lambda / \rho C_p \quad (19)$$

where C_p is the heat capacity at constant pressure. Both ρ and C_p are normally obtained from an equation of state and the thermal diffusivity is then calculated from the thermal conductivity. Occasionally the thermal diffusivity is measured directly, as was done by Weber [9] who used a light scattering apparatus to measure the thermal diffusivity, primarily in the critical region.

The experimental information to be considered are the 76 points presented in three groups in table 3, where the values are taken from reference [9]. Weber converted his experimental measurements of thermal diffusivity to values of

Table 2. Thermal Conductivities near 162.9805 K

| Temperatures | | Density mol/L | Thermal Conductivities | | Deviations | |
|--------------|--------------|------------------|------------------------|------------------|-------------------|---------|
| inside K | outside K | | inside W/m.K | outside W/m.K | in.-out. W/m.K | percent |
| 162.980 | 162.981 | .5 | .015578 | .015579 | -.000000 | -.00 |
| 162.980 | 162.981 | 1.0 | .016030 | .016030 | -.000000 | -.00 |
| 162.980 | 162.981 | 1.5 | .016539 | .016539 | -.000000 | -.00 |
| 162.980 | 162.981 | 2.0 | .017123 | .017123 | -.000000 | -.00 |
| 162.980 | 162.981 | 2.5 | .017795 | .017795 | -.000000 | -.00 |
| 162.980 | 162.981 | 3.0 | .018564 | .018564 | -.000000 | -.00 |
| 162.980 | 162.981 | 3.5 | .019436 | .019436 | -.000000 | -.00 |
| 162.980 | 162.981 | 4.0 | .020412 | .020412 | -.000000 | -.00 |
| 162.980 | 162.981 | 4.5 | .021491 | .021491 | .000000 | .00 |
| 162.980 | 162.981 | 5.0 | .022668 | .022668 | .000000 | .00 |
| 162.980 | 162.981 | 5.5 | .023938 | .023938 | .000000 | .00 |
| 162.980 | 162.981 | 6.0 | .025294 | .025294 | .000000 | .00 |
| 162.980 | 162.981 | 6.5 | .026728 | .026728 | .000000 | .00 |
| 162.980 | 162.981 | 7.0 | .028231 | .028231 | .000000 | .00 |
| 162.980 | 162.981 | 7.5 | .029792 | .029792 | .000000 | .00 |
| 162.980 | 162.981 | 8.0 | .031402 | .031401 | .000000 | .00 |
| 162.980 | 162.981 | 8.5 | .033214 | .033046 | .000168 | .50 |
| 162.980 | 162.981 | 9.0 | .035034 | .034713 | .000321 | .92 |
| 162.980 | 162.981 | 9.5 | .036831 | .036386 | .000445 | 1.21 |
| 162.980 | 162.981 | 10.0 | .038586 | .038051 | .000535 | 1.39 |
| 162.980 | 162.981 | 10.5 | .040280 | .039692 | .000588 | 1.46 |
| 162.980 | 162.981 | 11.0 | .041894 | .041292 | .000602 | 1.44 |
| 162.980 | 162.981 | 11.5 | .043411 | .042836 | .000575 | 1.32 |
| 162.980 | 162.981 | 12.0 | .044813 | .044310 | .000503 | 1.12 |
| 162.980 | 162.981 | 12.5 | .046087 | .045703 | .000384 | .83 |
| 162.980 | 162.981 | 13.0 | .047229 | .047005 | .000224 | .47 |
| 162.980 | 162.981 | 13.5 | .048258 | .048213 | .000045 | .09 |
| 162.980 | 162.981 | 14.0 | .049325 | .049324 | .000001 | .00 |
| 162.980 | 162.981 | 14.5 | .050342 | .050342 | .000001 | .00 |
| 162.980 | 162.981 | 15.0 | .051274 | .051274 | .000001 | .00 |
| 162.980 | 162.981 | 15.5 | .052131 | .052131 | .000001 | .00 |
| 162.980 | 162.981 | 16.0 | .052928 | .052928 | .000001 | .00 |
| 162.980 | 162.981 | 16.5 | .053682 | .053681 | .000001 | .00 |
| 162.980 | 162.981 | 17.0 | .054413 | .054412 | .000000 | .00 |
| 162.980 | 162.981 | 17.5 | .055141 | .055141 | .000000 | .00 |
| 162.980 | 162.981 | 18.0 | .055890 | .055889 | .000000 | .00 |
| 162.980 | 162.981 | 18.5 | .056680 | .056680 | .000000 | .00 |
| 162.980 | 162.981 | 19.0 | .057533 | .057533 | .000000 | .00 |
| 162.980 | 162.981 | 19.5 | .058468 | .058468 | .000000 | .00 |
| 162.980 | 162.981 | 20.0 | .059504 | .059504 | .000000 | .00 |
| 162.980 | 162.981 | 20.5 | .060656 | .060656 | .000000 | .00 |
| 162.980 | 162.981 | 21.0 | .061937 | .061937 | .000000 | .00 |
| 162.980 | 162.981 | 21.5 | .063358 | .063358 | .000000 | .00 |
| 162.980 | 162.981 | 22.0 | .064927 | .064927 | .000000 | .00 |
| 162.980 | 162.981 | 22.5 | .066651 | .066651 | .000000 | .00 |
| 162.980 | 162.981 | 23.0 | .068533 | .068533 | .000000 | .00 |
| 162.980 | 162.981 | 23.5 | .070576 | .070576 | -.000000 | -.00 |
| 162.980 | 162.981 | 24.0 | .072780 | .072780 | -.000000 | -.00 |
| 162.980 | 162.981 | 24.5 | .075145 | .075145 | -.000000 | -.00 |
| 162.980 | 162.981 | 25.0 | .077671 | .077671 | -.000000 | -.00 |
| 162.980 | 162.981 | 25.5 | .080354 | .080354 | -.000000 | -.00 |
| 162.980 | 162.981 | 26.0 | .083195 | .083195 | -.000000 | -.00 |
| 162.980 | 162.981 | 26.5 | .086190 | .086190 | -.000000 | -.00 |
| 162.980 | 162.981 | 27.0 | .089339 | .089340 | -.000000 | -.00 |
| 162.980 | 162.981 | 27.5 | .092641 | .092641 | -.000000 | -.00 |
| 162.980 | 162.981 | 28.0 | .096095 | .096095 | -.000000 | -.00 |
| 162.980 | 162.981 | 28.5 | .099700 | .099700 | -.000000 | -.00 |
| 162.980 | 162.981 | 29.0 | .103458 | .103458 | -.000000 | -.00 |
| 162.980 | 162.981 | 29.5 | .107369 | .107369 | -.000000 | -.00 |
| 162.980 | 162.981 | 30.0 | .111436 | .111436 | -.000000 | -.00 |

thermal conductivity using eq (19). Thus the comparisons to be made are "experimental thermal conductivity" to calculated thermal conductivity, where the method of calculation has been described in the previous section. In table 3 the first group, 14 points, includes all of Weber's measurements with temperatures greater than 158. K, i.e., these points represent an overlap of the experimental measurements of references [8] and [9]. The second group, 33 points, includes those measurements for which the experimental densities lie between 13.1 and 13.7 mol/L, or $|\Delta\rho^*| \leq 0.04$. In essence this group is quite close to critical density. The remaining 29 points, i.e., the last group, are characterized by experimental densities which are considerably different than critical density. Differences between the calculation and Weber's "thermal conductivity" values [9] are given in table 3. The RMS deviation for the first grouping of 14 points is 5.3 percent. Well within the experimental uncertainty estimated by Weber, this average deviation indicates agreement between the diffusivity experiment and the hot wire thermal conductivity measurements. For the second grouping of 33 points we find an RMS deviation of 7.5 percent, again within the expected uncertainty of the experimental measurements. This average deviation indicates agreement between the diffusivity measurements and the most current method of predicting the anomalous thermal conductivity in the critical region for densities close to critical, i.e., for $\Delta\lambda_c(\rho_c, T)$. However, the deviation of the third grouping of 29 points is nearly 27 percent RMS, which exceeds experimental uncertainty by a considerable margin, and indicates a basic disagreement between these measurements and the prediction for densities which are substantially different from critical density. Despite considerable effort, the cause of the disagreement remains unresolved. The calculation values off the critical isochore may, therefore, be uncertain by as much as 30 percent for both thermal diffusivity and thermal conductivity.

5. Prandtl Number

The Prandtl number, Pr, is defined by the relation

$$\text{Pr} \equiv C_p \eta / \lambda \quad (20)$$

where C_p is the specific heat at constant pressure, η the viscosity and λ the thermal conductivity. To conserve space the Prandtl number has not been presented in the tables, it is however quite easy to calculate the Prandtl number

Table 3. Thermal Conductivities from Lightscattering, Weber [9].

| Temperature K | Density mol/L | Thermal Conductivity | | Deviations | | Group RMS percent |
|------------------|------------------|----------------------|----------------|---------------------|---------|-------------------------|
| | | exp. W/m.K | calc. W/m.K | exp.-calc. W/m.K | percent | |
| 158.519 | 13.19 | .0556 | .0562 | -.0006 | -1.16 | |
| 161.847 | 13.14 | .0480 | .0490 | -.0010 | -2.08 | |
| 164.426 | 13.27 | .0482 | .0468 | .0014 | 2.82 | |
| 164.426 | 13.27 | .0470 | .0468 | .0002 | .34 | |
| 164.426 | 13.27 | .0444 | .0468 | -.0024 | -5.50 | |
| 166.796 | 13.08 | .0415 | .0453 | -.0038 | -9.15 | |
| 168.946 | 13.21 | .0440 | .0449 | -.0009 | -1.94 | |
| 173.935 | 13.04 | .0414 | .0433 | -.0019 | -4.49 | |
| 159.583 | 13.49 | .0541 | .0538 | .0003 | .57 | |
| 159.890 | 13.44 | .0525 | .0530 | -.0005 | -.98 | |
| 159.883 | 13.58 | .0537 | .0533 | .0004 | .80 | |
| 159.878 | 13.50 | .0527 | .0531 | -.0004 | -.84 | |
| 158.133 | 15.30 | .0693 | .0589 | .0104 | 15.03 | |
| 160.493 | 15.30 | .0550 | .0542 | .0008 | 1.44 | |
| | | | | | | 5.23 |
| 154.619 | 13.13 | .2507 | .2855 | -.0348 | -13.90 | |
| 155.173 | 13.18 | .1043 | .0996 | .0047 | 4.51 | |
| 155.649 | 13.19 | .0875 | .0812 | .0063 | 7.16 | |
| 155.651 | 13.20 | .0871 | .0812 | .0059 | 6.74 | |
| 156.642 | 13.19 | .0715 | .0665 | .0050 | 7.03 | |
| 157.580 | 13.18 | .0627 | .0601 | .0026 | 4.12 | |
| 154.717 | 13.33 | .1842 | .1835 | .0007 | .35 | |
| 154.746 | 13.37 | .1758 | .1697 | .0061 | 3.47 | |
| 154.771 | 13.40 | .1674 | .1600 | .0074 | 4.40 | |
| 154.787 | 13.38 | .1601 | .1543 | .0058 | 3.64 | |
| 154.795 | 13.39 | .1578 | .1520 | .0058 | 3.68 | |
| 154.645 | 13.42 | .2610 | .2635 | -.0025 | -.95 | |
| 154.690 | 13.44 | .2109 | .2063 | .0046 | 2.17 | |
| 154.801 | 13.44 | .1627 | .1507 | .0120 | 7.36 | |
| 154.841 | 13.46 | .1567 | .1404 | .0163 | 10.37 | |
| 154.872 | 13.43 | .1426 | .1337 | .0089 | 6.21 | |
| 155.025 | 13.47 | .1212 | .1129 | .0083 | 6.88 | |
| 155.034 | 13.53 | .1230 | .1121 | .0109 | 8.87 | |
| 155.271 | 13.56 | .1100 | .0956 | .0144 | 13.09 | |
| 155.524 | 13.54 | .0990 | .0856 | .0134 | 13.52 | |
| 155.546 | 13.57 | .0970 | .0850 | .0120 | 12.40 | |
| 155.769 | 13.57 | .0891 | .0793 | .0098 | 10.98 | |
| 156.003 | 13.58 | .0855 | .0749 | .0106 | 12.35 | |
| 156.509 | 13.58 | .0783 | .0685 | .0098 | 12.56 | |
| 157.000 | 13.58 | .0731 | .0643 | .0088 | 12.03 | |
| 157.468 | 13.58 | .0643 | .0614 | .0029 | 4.49 | |
| 154.595 | 13.63 | .5600 | .5831 | -.0231 | -4.12 | |
| 154.598 | 13.63 | .5180 | .5266 | -.0086 | -1.66 | |
| 154.599 | 13.63 | .5230 | .5111 | .0119 | 2.27 | |
| 154.603 | 13.63 | .4720 | .4605 | .0115 | 2.44 | |
| 154.617 | 13.63 | .3550 | .3578 | -.0028 | -.79 | |
| 154.628 | 13.63 | .3170 | .3129 | .0041 | 1.29 | |
| 154.678 | 13.63 | .2250 | .2198 | .0052 | 2.30 | |
| | | | | | | 7.61 |
| 154.579 | 12.98 | .7700 | .4065 | .3635 | 47.21 | |
| 154.560 | 12.51 | .2825 | .1839 | .0986 | 34.89 | |
| 154.542 | 12.26 | .2152 | .1432 | .0720 | 33.47 | |
| 154.497 | 11.87 | .1524 | .1057 | .0467 | 30.61 | |
| 154.449 | 11.57 | .1256 | .0893 | .0363 | 28.93 | |
| 154.410 | 11.38 | .1206 | .0813 | .0393 | 32.62 | |
| 154.388 | 11.29 | .1058 | .0779 | .0279 | 26.41 | |
| 154.361 | 11.18 | .1134 | .0744 | .0390 | 34.44 | |
| 154.267 | 10.86 | .0906 | .0659 | .0247 | 27.31 | |
| 154.169 | 10.59 | .0687 | .0602 | .0085 | 12.40 | |
| 154.131 | 10.49 | .0870 | .0585 | .0285 | 32.78 | |
| 154.007 | 10.22 | .0723 | .0541 | .0182 | 25.22 | |
| 154.000 | 10.21 | .0707 | .0538 | .0169 | 23.83 | |
| 153.792 | 9.83 | .0565 | .0489 | .0076 | 13.54 | |
| 153.574 | 9.49 | .0517 | .0452 | .0065 | 12.56 | |
| 153.338 | 9.18 | .0476 | .0423 | .0053 | 11.21 | |
| 152.860 | 8.66 | .0405 | .0380 | .0025 | 6.14 | |
| 152.842 | 8.65 | .0457 | .0379 | .0078 | 17.11 | |
| 154.808 | 15.28 | .1295 | .0974 | .0321 | 24.76 | |
| 155.046 | 15.29 | .1110 | .0861 | .0249 | 22.43 | |
| 155.143 | 15.29 | .1213 | .0832 | .0381 | 31.44 | |
| 155.280 | 15.30 | .1029 | .0797 | .0232 | 22.53 | |
| 155.514 | 15.30 | .0950 | .0754 | .0196 | 20.66 | |
| 155.737 | 15.29 | .0844 | .0724 | .0120 | 14.21 | |
| 155.740 | 15.30 | .0978 | .0723 | .0255 | 26.07 | |
| 155.752 | 15.30 | .0922 | .0721 | .0201 | 21.76 | |
| 156.221 | 15.31 | .0851 | .0676 | .0175 | 20.55 | |
| 154.579 | 14.29 | .6580 | .3889 | .2691 | 40.89 | |
| 154.409 | 15.90 | .1265 | .0828 | .0437 | 34.57 | |
| | | | | | | 26.88 |

from the variables tabulated. If we solve eq (19) for C_p and substitute into eq (20) the relation for the Prandtl number becomes

$$Pr = \frac{\eta}{\rho\alpha} . \quad (21)$$

As an example we use eq (21) to determine Pr for the saturated liquid at 100 K

$$Pr = \frac{1542.3 \times 10^{-6}}{1.0907 \times 0.000723} = 1.956$$

Values for η , ρ , and α are taken from table 4. Because the viscosity is tabulated in $\mu\text{g}/\text{cm s}$ rather than Pa s , no unit conversions are required, and Pr is dimensionless as expected.

6. Description of the Data Tables

The following tables of values for the transport properties are presented in this report:

Table 4. Transport properties of oxygen for saturated liquid and vapor, SI units.

Table 5. Transport properties of oxygen, isobars, SI units.

Table 6. Transport properties of oxygen for saturated liquid and vapor, Engr. units.

Table 7. Transport properties of oxygen, isobars, Engr. units.

Table entries of temperature and pressure are chosen to correspond to the values given in NASA RP 1011 [5] so that the present tables can be thought of as an augmentation or extension of the earlier ones. Slight differences in the vapor pressure and density entries may be evident; they occur because the tables of NASA RP 1011 [5] were prepared using a polynomial PVT surface, while the present tables utilize a modified Benedict-Webb-Rubin equation of state [7]. It was not possible to use the polynomial PVT surface because that program specifically excludes a portion of the PVT surface close to the critical point. Conversions to other SI units and to units normally used in applied problems are given in appendix C. The tables were calculated using the programs listed in appendices A and B. The new programs given in appendix B for the thermal conductivity were written to be compatible with the equation of state package of reference [7]. The primary variables internal to the computer programs of reference [7] are pressure in atmospheres, density in moles/liter, and temperature in

kelvins. The changes required in the program set of reference [7] to implement the new thermal conductivity calculation are listed in appendix B. The changes are minimal, and they are indicated in appendix B by arrows. Branching occurs on the value of the molecular weight. We note that the dilute gas value for thermal conductivity, FUNCTION DILV(T), ENTRY DILT of reference [7] remains unchanged. The number of digits given in tables 4-7 should not be construed to be indicative of the accuracy of a quantity. Most of the properties in the tables range in value over several orders of magnitude, making it necessary to print more digits than is needed at one end of the range. If a given property is varying very slowly it may require digits beyond those necessary for accuracy to show the direction of the change. As an extreme case consider the triple point, the first two lines in table 4. The triple point pressure is not known to be better than about two digits, yet the saturated liquid density differs by five orders of magnitude from that of the vapor.

7. Error Estimates

Viscosity: The most recent experimental measurements published for a wide range of the viscosity surface are those by Haynes [4]. These new measurements cover temperatures from 75 to 300 K with pressures to 34 MPa. The correlation [3] represents the 175 experimental points with a RMS deviation of 1 percent (1σ) where the maximum and minimum deviations are + 3 and - 3 percent. Thus the uncertainty in viscosity for the tables presented here is approximately 1 percent for the dilute gas rising to 3 percent at pressures of 34 MPa. The uncertainty is expected to increase to no more than 10 percent for pressures up to 100 MPa.

Thermal Conductivity: The uncertainty of the dilute gas values is approximately 1 percent at room temperature and 1 atmosphere pressure, rising to 5 percent in going down to the triple point. The accuracy of the tables is expected to be 1.5 percent (1σ) over much of the surface, as established by the fit of the correlating surface [8]. This accuracy degrades to around 6 percent at 77 K and zero density and to around 6 percent in the region covering the critical enhancement at 159 K. For temperatures closer to critical the calculated values may be in error by as much as 30 percent. Extrapolation of the thermal conductivity surface of [8] for temperatures higher than about 340 K has not been examined.

Thermal Diffusivity: The uncertainty is estimated to be 5 percent, except for the critical region. At the critical point the thermal diffusivity is

expected to go to zero, even though both thermal conductivity and specific heat at constant pressure diverge strongly. In the near critical region ($T_c \pm 3$ percent; $\rho_c \pm 30$ percent) the uncertainties are as large as 30 percent when compared to experiment.

8. Summary

This report presents tables of viscosity, thermal conductivity, and thermal diffusivity of oxygen, as a function of temperature and pressure from the triple point to 320 K with pressures to 100 MPa. Values of the viscosity are calculated from a previous correlation. Values of the thermal conductivity are calculated from a new correlation which combines new experimental measurements of the thermal conductivity and new experimental measurements of the thermal diffusivity in the critical region.

9. References

1. McCarty, R. D.; and Weber, L. A.: Thermophysical Properties of Oxygen from the Freezing Liquid Line to 600 R for Pressures to 5000 psia. (NBS-TN-384, National Bureau of Standards.) NASA CR-121739, July 1971.
2. Roder, H. M.; and Weber, L. A.: ASRDI Oxygen Technology Survey. Volume I: Thermophysical Properties. NASA SP-3071, 1972.
3. Hanley, H. J. M.; McCarty, R. D.; and Haynes, W. M.: The Viscosity and Thermal Conductivity Coefficients for Dense Gaseous and Liquid Argon, Krypton, Xenon, Nitrogen and Oxygen. J. Phys. Chem. Ref. Data, vol. 3, no. 4, 1974, pp. 979-1017.
4. Haynes, W. M.: Measurements of the Viscosity of Compressed Gaseous and Liquid Oxygen. Physica, vol. 89A, 1977, pp. 569-582.
5. Weber, L. A.: Thermodynamic and Related Properties of Oxygen from the Triple Point to 300 K at Pressures to 1000 bar. NASA RP-1011, 1977.
6. Weber, L. A.: A Modified Benedict-Webb-Rubin Equation of State for Gaseous and Liquid Oxygen. (NBSIR-78-882, National Bureau of Standards.) NASA CR-157861, April 1978.
7. McCarty, R. D.: Interactive FORTRAN IV Computer Programs for the Thermodynamic and Transport Properties of Selected Cryogenes (Fluids Pack). (NBS-TN-1025, National Bureau of Standards.) NASA CR-164016, Oct. 1980.
8. Roder, H. M.: The Thermal Conductivity of Oxygen (Submitted to J. Res. Nat. Bur. Stands.)
9. Weber, L. A.: Thermal Conductivity of Oxygen in the Critical Region. (Submitted to Intern. J. Thermophysics.)
10. Sengers, J. V.; Basu, R. S.; and Levelt Sengers, J. M. H.: Representative Equations for the Thermodynamic and Transport Properties of Fluids Near the Gas-Liquid Critical Point. NASA CR-3424, May 1981.

Table 4. Transport Properties of Oxygen for saturated Liquid and Vapor, SI Units

| Temp. K | Pressure MPa | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s | Temp. K | Pressure MPa | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s |
|------------|-----------------|------------------------------|---------------------------|-------------------------------|--|------------|-----------------|------------------------------|---------------------------|-------------------------------|--|
| 54.359 | .00015 | 1.306190 | .20356 | 4852.3 | .000937 | 106. | .4081 | 1.05815 | .12814 | 1344.8 | .000685 |
| 54.359 | .00015 | .000010 | .00408 | 36.3 | 4.270533 | 106. | .4081 | .01627 | .00999 | 80.4 | .005636 |
| 56. | .00024 | 1.299003 | .20050 | 4677.6 | .000927 | 108. | .4722 | 1.04690 | .12528 | 1285.6 | .000671 |
| 56. | .00024 | .000017 | .00436 | 38.0 | 2.860294 | 108. | .4722 | .01867 | .01025 | 82.2 | .004945 |
| 58. | .00043 | 1.290220 | .19693 | 4462.3 | .000915 | 110. | .5434 | 1.03543 | .12241 | 1229.4 | .000657 |
| 58. | .00043 | .000028 | .00467 | 39.9 | 1.797919 | 110. | .5434 | .02134 | .01051 | 84.0 | .004352 |
| 60. | .00073 | 1.281405 | .19353 | 4248.2 | .000905 | 112. | .6222 | 1.02371 | .11951 | 1175.9 | .000642 |
| 60. | .00073 | .000047 | .00495 | 41.8 | 1.161530 | 112. | .6222 | .02428 | .01078 | 85.8 | .003840 |
| 62. | .00119 | 1.272552 | .19026 | 4038.2 | .000896 | 114. | .7090 | 1.01173 | .11659 | 1124.8 | .000626 |
| 62. | .00119 | .000074 | .00520 | 43.6 | .770926 | 114. | .7090 | .02753 | .01106 | 87.7 | .003395 |
| 64. | .00188 | 1.263654 | .18710 | 3834.4 | .000888 | 116. | .8043 | .99946 | .11365 | 1075.0 | .000610 |
| 64. | .00188 | .000113 | .00543 | 45.4 | .525087 | 116. | .8043 | .03111 | .01135 | 89.6 | .003006 |
| 66. | .00288 | 1.254707 | .18404 | 3638.3 | .000879 | 118. | .9085 | .98687 | .11069 | 1029.4 | .000593 |
| 66. | .00288 | .000168 | .00565 | 47.1 | .366477 | 118. | .9085 | .03506 | .01165 | 91.6 | .002665 |
| 68. | .00429 | 1.245706 | .18105 | 3450.8 | .000871 | 120. | 1.0222 | .97392 | .10770 | 984.6 | .000575 |
| 68. | .00429 | .000244 | .00586 | 48.8 | .261671 | 120. | 1.0222 | .03939 | .01196 | 93.7 | .002365 |
| 70. | .00625 | 1.236647 | .17813 | 3272.3 | .000863 | 122. | 1.1458 | .96059 | .10468 | 941.6 | .000557 |
| 70. | .00625 | .000345 | .00607 | 50.5 | .190824 | 122. | 1.1458 | .04416 | .01230 | 95.8 | .002099 |
| 72. | .00889 | 1.227527 | .17526 | 3103.0 | .000855 | 124. | 1.2797 | .94683 | .10164 | 900.2 | .000538 |
| 72. | .00889 | .000478 | .00627 | 52.1 | .141898 | 124. | 1.2797 | .04940 | .01264 | 98.0 | .001862 |
| 74. | .01240 | 1.218340 | .17243 | 2943.0 | .000847 | 126. | 1.4245 | .93260 | .09857 | 860.3 | .000518 |
| 74. | .01240 | .000650 | .00647 | 53.8 | .107424 | 126. | 1.4245 | .05515 | .01302 | 100.3 | .001651 |
| 76. | .01695 | 1.209083 | .16964 | 2791.9 | .000839 | 128. | 1.5807 | .91782 | .09548 | 821.6 | .000497 |
| 76. | .01695 | .000866 | .00667 | 55.4 | .082673 | 128. | 1.5807 | .06149 | .01342 | 102.7 | .001462 |
| 78. | .02276 | 1.199753 | .16687 | 2649.5 | .000831 | 130. | 1.7488 | .90245 | .09235 | 784.1 | .000475 |
| 78. | .02276 | .001137 | .00687 | 57.0 | .064591 | 130. | 1.7488 | .06847 | .01385 | 105.2 | .001292 |
| 80. | .03009 | 1.190345 | .16411 | 2515.5 | .000823 | 132. | 1.9294 | .88640 | .08920 | 747.6 | .000453 |
| 80. | .03009 | .001469 | .00708 | 58.7 | .051164 | 132. | 1.9294 | .07618 | .01433 | 107.9 | .001138 |
| 82. | .03919 | 1.180854 | .16137 | 2389.5 | .000814 | 134. | 2.1229 | .86957 | .08602 | 712.0 | .000429 |
| 82. | .03919 | .001872 | .00728 | 60.3 | .041042 | 134. | 2.1229 | .08472 | .01487 | 110.8 | .000999 |
| 84. | .05035 | 1.171275 | .15864 | 2271.0 | .000806 | 136. | 2.3301 | .85185 | .08282 | 677.2 | .000404 |
| 84. | .05035 | .002356 | .00749 | 61.9 | .033303 | 136. | 2.3301 | .09421 | .01549 | 113.9 | .000873 |
| 86. | .06387 | 1.161604 | .15590 | 2159.5 | .000797 | 138. | 2.5514 | .83309 | .07960 | 642.9 | .000378 |
| 86. | .06387 | .002931 | .00770 | 63.5 | .027309 | 138. | 2.5514 | .10481 | .01621 | 117.3 | .000759 |
| 88. | .08007 | 1.151835 | .15317 | 2054.7 | .000787 | 140. | 2.7875 | .81308 | .07638 | 608.9 | .000350 |
| 88. | .08007 | .003607 | .00791 | 65.2 | .022609 | 140. | 2.7875 | .11674 | .01706 | 121.1 | .000654 |
| 90. | .09931 | 1.141960 | .15043 | 1956.1 | .000778 | 142. | 3.0392 | .79155 | .07317 | 575.1 | .000320 |
| 90. | .09931 | .004396 | .00812 | 66.8 | .018882 | 142. | 3.0392 | .13028 | .01811 | 125.3 | .000557 |
| 92. | .12194 | 1.131973 | .14769 | 1863.3 | .000768 | 144. | 3.3072 | .76811 | .07002 | 541.1 | .000289 |
| 92. | .12194 | .005308 | .00834 | 68.5 | .015896 | 144. | 3.3072 | .14584 | .01945 | 130.1 | .000467 |
| 94. | .14833 | 1.121867 | .14494 | 1775.9 | .000757 | 146. | 3.5924 | .74215 | .06700 | 506.4 | .000254 |
| 94. | .14833 | .006357 | .00856 | 70.1 | .013479 | 146. | 3.5924 | .16405 | .02121 | 135.7 | .000383 |
| 96. | .17887 | 1.111632 | .14217 | 1693.5 | .000746 | 148. | 3.8958 | .71262 | .06423 | 470.4 | .000216 |
| 96. | .17887 | .007555 | .00879 | 71.8 | .011504 | 148. | 3.8958 | .18598 | .02365 | 142.6 | .000302 |
| 98. | .21395 | 1.101259 | .13940 | 1615.7 | .000735 | 150. | 4.2186 | .67747 | .06197 | 431.5 | .000171 |
| 98. | .21395 | .008916 | .00902 | 73.5 | .009878 | 150. | 4.2186 | .21370 | .02726 | 151.5 | .000221 |
| 100. | .25399 | 1.090736 | .13661 | 1542.3 | .000723 | 152. | 4.5625 | .63157 | .06075 | 386.2 | .000115 |
| 100. | .25399 | .010452 | .00926 | 75.2 | .008527 | 152. | 4.5625 | .25242 | .03324 | 164.7 | .000133 |
| 102. | .29940 | 1.080053 | .13380 | 1472.8 | .000711 | 154. | 4.9305 | .54944 | .06376 | 317.9 | .000034 |
| 102. | .29940 | .012180 | .00949 | 76.9 | .007397 | 154. | 4.9305 | .32914 | .05480 | 193.9 | .000035 |
| 104. | .35061 | 1.069196 | .13098 | 1407.1 | .000698 | 154.581 | 5.0430 | .54944 | | | |
| 104. | .35061 | .014115 | .00974 | 78.6 | .006444 | 154.581 | 5.0430 | .32914 | | | |

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| .1 MPa Isobar | | | | | .2 MPa Isobar | | | | |
|---------------|---------|---------------|--------------|---------------------|---------------|---------|---------------|--------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s | K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s |
| * 54.370 | 1.3063 | .20358 | 4855.4 | .000937 | * 54.382 | 1.3063 | .20361 | 4858.5 | .000937 |
| 56. | 1.2991 | .20054 | 4681.7 | .000927 | 56. | 1.2992 | .20059 | 4685.8 | .000927 |
| 58. | 1.2903 | .19698 | 4466.2 | .000916 | 58. | 1.2905 | .19703 | 4470.0 | .000916 |
| 60. | 1.2815 | .19358 | 4251.8 | .000906 | 60. | 1.2817 | .19362 | 4255.4 | .000906 |
| 62. | 1.2727 | .19031 | 4041.6 | .000896 | 62. | 1.2728 | .19036 | 4045.0 | .000897 |
| 64. | 1.2638 | .18715 | 3837.6 | .000888 | 64. | 1.2639 | .18720 | 3840.9 | .000888 |
| 66. | 1.2548 | .18409 | 3641.3 | .000879 | 66. | 1.2550 | .18414 | 3644.5 | .000880 |
| 68. | 1.2458 | .18110 | 3453.6 | .000871 | 68. | 1.2460 | .18116 | 3456.6 | .000872 |
| 70. | 1.2368 | .17818 | 3275.0 | .000863 | 70. | 1.2369 | .17824 | 3277.8 | .000864 |
| 72. | 1.2277 | .17531 | 3105.5 | .000855 | 72. | 1.2278 | .17537 | 3108.2 | .000856 |
| 74. | 1.2185 | .17248 | 2945.2 | .000847 | 74. | 1.2186 | .17254 | 2947.8 | .000848 |
| 76. | 1.2092 | .16969 | 2793.9 | .000840 | 76. | 1.2094 | .16975 | 2796.4 | .000840 |
| 78. | 1.1999 | .16691 | 2651.4 | .000831 | 78. | 1.2001 | .16698 | 2653.8 | .000832 |
| 80. | 1.1905 | .16416 | 2517.1 | .000823 | 80. | 1.1906 | .16422 | 2519.5 | .000823 |
| 82. | 1.1810 | .16141 | 2390.8 | .000815 | 82. | 1.1812 | .16148 | 2393.1 | .000815 |
| 84. | 1.1714 | .15867 | 2272.0 | .000806 | 84. | 1.1716 | .15874 | 2274.2 | .000806 |
| 86. | 1.1617 | .15593 | 2160.3 | .000797 | 86. | 1.1619 | .15600 | 2162.3 | .000797 |
| 88. | 1.1519 | .15318 | 2055.1 | .000787 | 88. | 1.1521 | .15326 | 2057.1 | .000788 |
| 90. | 1.1420 | .15043 | 1956.1 | .000778 | 90. | 1.1422 | .15051 | 1958.1 | .000778 |
| * 90.066 | 1.1416 | .15034 | 1953.0 | .000777 | 92. | 1.1322 | .14775 | 1864.8 | .000768 |
| * 90.066 | .0044 | .00813 | 66.9 | .018773 | 94. | 1.1220 | .14498 | 1776.8 | .000757 |
| 92. | .0043 | .00831 | 68.4 | .019778 | 96. | 1.1117 | .14219 | 1693.8 | .000747 |
| 94. | .0042 | .00851 | 69.9 | .020837 | * 97.237 | 1.1052 | .14046 | 1644.8 | .000739 |
| 96. | .0041 | .00870 | 71.5 | .021917 | * 97.237 | .0084 | .00893 | 72.8 | .010463 |
| 98. | .0040 | .00889 | 73.0 | .023018 | 98. | .0083 | .00901 | 73.4 | .010686 |
| 100. | .0039 | .00909 | 74.6 | .024141 | 100. | .0081 | .00920 | 75.0 | .011276 |
| 102. | .0039 | .00929 | 76.1 | .025286 | 102. | .0079 | .00939 | 76.5 | .011876 |
| 104. | .0038 | .00948 | 77.7 | .026452 | 104. | .0077 | .00959 | 78.0 | .012484 |
| 106. | .0037 | .00968 | 79.2 | .027640 | 106. | .0076 | .00978 | 79.6 | .013102 |
| 108. | .0036 | .00988 | 80.8 | .028849 | 108. | .0074 | .00998 | 81.1 | .013730 |
| 110. | .0036 | .01008 | 82.3 | .030079 | 110. | .0073 | .01018 | 82.6 | .014366 |
| 112. | .0035 | .01028 | 83.8 | .031331 | 112. | .0071 | .01037 | 84.1 | .015013 |
| 114. | .0034 | .01048 | 85.3 | .032604 | 114. | .0070 | .01057 | 85.7 | .015668 |
| 116. | .0034 | .01068 | 86.9 | .033898 | 116. | .0069 | .01077 | 87.2 | .016333 |
| 118. | .0033 | .01088 | 88.4 | .035212 | 118. | .0067 | .01097 | 88.7 | .017008 |
| 120. | .0033 | .01108 | 89.9 | .036547 | 120. | .0066 | .01116 | 90.2 | .017692 |
| 122. | .0032 | .01128 | 91.4 | .037902 | 122. | .0065 | .01136 | 91.7 | .018385 |
| 124. | .0031 | .01147 | 92.9 | .039278 | 124. | .0064 | .01156 | 93.2 | .019088 |
| 126. | .0031 | .01167 | 94.4 | .040673 | 126. | .0063 | .01175 | 94.7 | .019800 |
| 128. | .0030 | .01187 | 95.9 | .042089 | 128. | .0062 | .01195 | 96.2 | .020522 |
| 130. | .0030 | .01207 | 97.4 | .043523 | 130. | .0061 | .01215 | 97.7 | .021252 |
| 132. | .0029 | .01226 | 98.9 | .044978 | 132. | .0060 | .01234 | 99.2 | .021992 |
| 134. | .0029 | .01246 | 100.4 | .046451 | 134. | .0059 | .01254 | 100.6 | .022742 |
| 136. | .0029 | .01266 | 101.8 | .047944 | 136. | .0058 | .01273 | 102.1 | .023500 |
| 138. | .0028 | .01285 | 103.3 | .049457 | 138. | .0057 | .01293 | 103.6 | .024267 |
| 140. | .0028 | .01305 | 104.8 | .050988 | 140. | .0056 | .01312 | 105.1 | .025044 |
| 142. | .0027 | .01324 | 106.2 | .052539 | 142. | .0055 | .01332 | 106.5 | .025831 |
| 144. | .0027 | .01343 | 107.7 | .054110 | 144. | .0054 | .01351 | 108.0 | .026626 |
| 146. | .0027 | .01363 | 109.2 | .055700 | 146. | .0054 | .01370 | 109.4 | .027432 |
| 148. | .0026 | .01382 | 110.6 | .057312 | 148. | .0053 | .01389 | 110.9 | .028248 |
| 150. | .0026 | .01401 | 112.1 | .058946 | 150. | .0052 | .01409 | 112.3 | .029075 |
| 152. | .0025 | .01421 | 113.5 | .060604 | 152. | .0051 | .01428 | 113.7 | .029915 |
| 154. | .0025 | .01440 | 114.9 | .062292 | 154. | .0051 | .01448 | 115.2 | .030770 |
| 156. | .0025 | .01459 | 116.4 | .063940 | 156. | .0050 | .01466 | 116.6 | .031601 |
| 158. | .0025 | .01476 | 117.8 | .065589 | 158. | .0049 | .01484 | 118.0 | .032432 |
| 160. | .0024 | .01494 | 119.2 | .067264 | 160. | .0049 | .01501 | 119.4 | .033275 |
| 165. | .0023 | .01539 | 122.7 | .071543 | 165. | .0047 | .01546 | 122.9 | .035431 |
| 170. | .0023 | .01584 | 126.2 | .075939 | 170. | .0046 | .01590 | 126.4 | .037645 |
| 175. | .0022 | .01628 | 129.7 | .080442 | 175. | .0044 | .01635 | 129.9 | .039912 |
| 180. | .0021 | .01672 | 133.1 | .085048 | 180. | .0043 | .01678 | 133.3 | .042229 |
| 185. | .0021 | .01716 | 136.5 | .089753 | 185. | .0042 | .01722 | 136.7 | .044596 |
| 190. | .0020 | .01759 | 139.8 | .094556 | 190. | .0041 | .01765 | 140.0 | .047012 |
| 195. | .0020 | .01802 | 143.1 | .099455 | 195. | .0040 | .01807 | 143.3 | .049475 |
| 200. | .0019 | .01844 | 146.4 | .104449 | 200. | .0039 | .01850 | 146.6 | .051985 |
| 210. | .0018 | .01927 | 152.9 | .114718 | 210. | .0037 | .01933 | 153.1 | .057143 |
| 220. | .0018 | .02009 | 159.3 | .125354 | 220. | .0035 | .02015 | 159.4 | .062485 |
| 230. | .0017 | .02090 | 165.5 | .136351 | 230. | .0034 | .02096 | 165.7 | .068006 |
| 240. | .0016 | .02170 | 171.6 | .147703 | 240. | .0032 | .02175 | 171.8 | .073703 |
| 250. | .0015 | .02248 | 177.7 | .159402 | 250. | .0031 | .02254 | 177.8 | .079573 |
| 260. | .0015 | .02326 | 183.6 | .171442 | 260. | .0030 | .02332 | 183.7 | .085612 |
| 270. | .0014 | .02404 | 189.4 | .183814 | 270. | .0029 | .02409 | 189.5 | .091817 |
| 280. | .0014 | .02480 | 195.1 | .196511 | 280. | .0028 | .02485 | 195.2 | .098184 |
| 290. | .0013 | .02556 | 200.7 | .209523 | 290. | .0027 | .02561 | 200.8 | .104708 |
| 300. | .0013 | .02631 | 206.3 | .222843 | 300. | .0026 | .02637 | 206.4 | .111384 |
| 310. | .0012 | .02706 | 211.7 | .236472 | 310. | .0025 | .02712 | 211.8 | .118215 |
| 320. | .0012 | .02782 | 217.1 | .250436 | 320. | .0024 | .02787 | 217.2 | .125214 |

* Two Phase Boundary

Table 5. Transport Properties of Dvxoen, Isobars, SI Units.

| .3 MPa Isobar | | | | | .4 MPa Isobar | | | | |
|---------------|---------|---------------|--------------|---------------------|---------------|---------|---------------|--------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s | K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s |
| * 54.353 | 1.3064 | .20363 | 4861.6 | .000937 | * 54.405 | 1.3064 | .20365 | 4864.7 | .000937 |
| 56. | 1.2994 | .20064 | 4689.9 | .000927 | 56. | 1.2995 | .20068 | 4694.1 | .000927 |
| 58. | 1.2904 | .19708 | 4473.9 | .000916 | 58. | 1.2907 | .19712 | 4477.8 | .000916 |
| 60. | 1.2818 | .19367 | 4259.1 | .000906 | 60. | 1.2819 | .19372 | 4262.7 | .000905 |
| 62. | 1.2729 | .19041 | 4048.5 | .000897 | 62. | 1.2731 | .19045 | 4051.9 | .000897 |
| 64. | 1.2640 | .18725 | 3844.2 | .000888 | 64. | 1.2642 | .18730 | 3847.5 | .000888 |
| 66. | 1.2551 | .18419 | 3647.6 | .000880 | 66. | 1.2552 | .18424 | 3650.7 | .000880 |
| 68. | 1.2461 | .18121 | 3459.6 | .000872 | 68. | 1.2463 | .18126 | 3462.5 | .000872 |
| 70. | 1.2371 | .17829 | 3280.6 | .000864 | 70. | 1.2372 | .17835 | 3283.4 | .000864 |
| 72. | 1.2280 | .17543 | 3110.9 | .000856 | 72. | 1.2281 | .17548 | 3113.6 | .000856 |
| 74. | 1.2188 | .17260 | 2950.4 | .000848 | 74. | 1.2190 | .17266 | 2953.0 | .000848 |
| 76. | 1.2095 | .16981 | 2798.9 | .000840 | 76. | 1.2097 | .16987 | 2801.4 | .000840 |
| 78. | 1.2002 | .16704 | 2656.2 | .000832 | 78. | 1.2004 | .16710 | 2658.6 | .000832 |
| 80. | 1.1908 | .16428 | 2521.8 | .000824 | 80. | 1.1910 | .16435 | 2524.1 | .000824 |
| 82. | 1.1813 | .16154 | 2395.3 | .000815 | 82. | 1.1815 | .16161 | 2397.5 | .000816 |
| 84. | 1.1718 | .15881 | 2276.3 | .000807 | 84. | 1.1720 | .15887 | 2278.5 | .000807 |
| 86. | 1.1621 | .15607 | 2164.4 | .000798 | 86. | 1.1623 | .15614 | 2165.5 | .000798 |
| 88. | 1.1523 | .15333 | 2059.2 | .000788 | 88. | 1.1525 | .15340 | 2061.2 | .000789 |
| 90. | 1.1424 | .15058 | 1960.0 | .000779 | 90. | 1.1426 | .15066 | 1962.0 | .000779 |
| 92. | 1.1324 | .14783 | 1866.7 | .000769 | 92. | 1.1326 | .14791 | 1866.6 | .000769 |
| 94. | 1.1222 | .14506 | 1778.7 | .000758 | 94. | 1.1225 | .14514 | 1780.5 | .000759 |
| 96. | 1.1119 | .14227 | 1695.7 | .000747 | 96. | 1.1122 | .14236 | 1697.5 | .000748 |
| 98. | 1.1015 | .13947 | 1617.3 | .000736 | 98. | 1.1018 | .13956 | 1619.1 | .000736 |
| 100. | 1.0909 | .13665 | 1543.1 | .000724 | 100. | 1.0912 | .13674 | 1544.9 | .000724 |
| 102. | 1.0801 | .13380 | 1472.8 | .000711 | 102. | 1.0804 | .13389 | 1474.6 | .000712 |
| * 102.025 | 1.0799 | .13377 | 1472.0 | .000711 | 104. | 1.0694 | .13103 | 1408.0 | .000599 |
| * 102.025 | .0122 | .00950 | 76.9 | .007384 | * 105.733 | 1.0596 | .12852 | 1352.9 | .000687 |
| 104. | .0119 | .00969 | 78.4 | .007803 | * 105.733 | .0160 | .00996 | 80.1 | .005736 |
| 106. | .0116 | .00988 | 79.9 | .008233 | 106. | .0159 | .00998 | 80.3 | .005781 |
| 108. | .0114 | .01007 | 81.5 | .008667 | 108. | .0155 | .01017 | 81.9 | .006121 |
| 110. | .0111 | .01027 | 83.0 | .009107 | 110. | .0152 | .01036 | 83.4 | .006464 |
| 112. | .0109 | .01046 | 84.5 | .009553 | 112. | .0148 | .01056 | 84.9 | .006810 |
| 114. | .0107 | .01066 | 86.0 | .010004 | 114. | .0145 | .01075 | 86.4 | .007159 |
| 116. | .0105 | .01085 | 87.5 | .010460 | 116. | .0142 | .01094 | 87.9 | .007512 |
| 118. | .0103 | .01105 | 89.0 | .010923 | 118. | .0139 | .01114 | 89.4 | .007869 |
| 120. | .0101 | .01125 | 90.5 | .011391 | 120. | .0136 | .01133 | 90.9 | .008230 |
| 122. | .0099 | .01144 | 92.0 | .011864 | 122. | .0134 | .01153 | 92.4 | .008594 |
| 124. | .0097 | .01164 | 93.5 | .012343 | 124. | .0131 | .01172 | 93.9 | .008962 |
| 126. | .0095 | .01183 | 95.0 | .012828 | 126. | .0129 | .01191 | 95.4 | .009334 |
| 128. | .0094 | .01203 | 96.5 | .013319 | 128. | .0126 | .01211 | 96.8 | .009710 |
| 130. | .0092 | .01222 | 98.0 | .013816 | 130. | .0124 | .01230 | 98.3 | .010090 |
| 132. | .0090 | .01242 | 99.5 | .014318 | 132. | .0122 | .01250 | 99.8 | .010474 |
| 134. | .0089 | .01261 | 100.9 | .014826 | 134. | .0120 | .01269 | 101.3 | .010862 |
| 136. | .0087 | .01281 | 102.4 | .015340 | 136. | .0118 | .01288 | 102.7 | .011254 |
| 138. | .0086 | .01300 | 103.9 | .015860 | 138. | .0116 | .01308 | 104.2 | .011650 |
| 140. | .0085 | .01319 | 105.3 | .016386 | 140. | .0114 | .01327 | 105.6 | .012051 |
| 142. | .0083 | .01339 | 106.8 | .016918 | 142. | .0112 | .01346 | 107.1 | .012456 |
| 144. | .0082 | .01358 | 108.2 | .017456 | 144. | .0111 | .01365 | 108.5 | .012865 |
| 146. | .0081 | .01377 | 109.7 | .018000 | 146. | .0109 | .01384 | 110.0 | .013279 |
| 148. | .0080 | .01397 | 111.1 | .018551 | 148. | .0107 | .01404 | 111.4 | .013698 |
| 150. | .0079 | .01416 | 112.6 | .019110 | 150. | .0106 | .01423 | 112.8 | .014123 |
| 152. | .0078 | .01435 | 114.0 | .019677 | 152. | .0104 | .01443 | 114.3 | .014554 |
| 154. | .0077 | .01455 | 115.4 | .020255 | 154. | .0103 | .01462 | 115.7 | .014994 |
| 156. | .0075 | .01473 | 116.8 | .020814 | 156. | .0101 | .01480 | 117.1 | .015417 |
| 158. | .0074 | .01490 | 118.3 | .021371 | 158. | .0100 | .01497 | 118.5 | .015838 |
| 160. | .0074 | .01508 | 119.7 | .021938 | 160. | .0099 | .01515 | 119.9 | .016266 |
| 165. | .0071 | .01552 | 123.2 | .023386 | 165. | .0095 | .01559 | 123.4 | .017361 |
| 170. | .0069 | .01597 | 126.6 | .024873 | 170. | .0092 | .01603 | 126.9 | .018484 |
| 175. | .0067 | .01641 | 130.1 | .026395 | 175. | .0090 | .01647 | 130.3 | .019634 |
| 180. | .0065 | .01684 | 133.5 | .027950 | 180. | .0087 | .01690 | 133.7 | .020808 |
| 185. | .0063 | .01728 | 136.9 | .029538 | 185. | .0085 | .01733 | 137.1 | .022006 |
| 190. | .0061 | .01771 | 140.2 | .031158 | 190. | .0082 | .01776 | 140.4 | .023228 |
| 195. | .0060 | .01813 | 143.5 | .032809 | 195. | .0080 | .01819 | 143.7 | .024473 |
| 200. | .0058 | .01855 | 146.8 | .034491 | 200. | .0078 | .01861 | 147.0 | .025741 |
| 210. | .0055 | .01938 | 153.2 | .037946 | 210. | .0074 | .01944 | 153.4 | .028346 |
| 220. | .0053 | .02020 | 159.6 | .041523 | 220. | .0071 | .02025 | 159.8 | .031040 |
| 230. | .0050 | .02101 | 165.8 | .045218 | 230. | .0067 | .02106 | 166.0 | .033822 |
| 240. | .0048 | .02180 | 171.9 | .049030 | 240. | .0065 | .02186 | 172.1 | .036692 |
| 250. | .0046 | .02259 | 177.9 | .052957 | 250. | .0062 | .02264 | 178.1 | .039647 |
| 260. | .0045 | .02337 | 183.8 | .056996 | 260. | .0059 | .02342 | 184.0 | .042686 |
| 270. | .0043 | .02414 | 189.6 | .061145 | 270. | .0057 | .02419 | 189.8 | .045807 |
| 280. | .0041 | .02490 | 195.3 | .065401 | 280. | .0055 | .02495 | 195.5 | .049008 |
| 290. | .0040 | .02566 | 201.0 | .069762 | 290. | .0053 | .02571 | 201.1 | .052287 |
| 300. | .0039 | .02642 | 206.5 | .074224 | 300. | .0051 | .02646 | 206.6 | .055642 |
| 310. | .0037 | .02717 | 211.9 | .078789 | 310. | .0050 | .02721 | 212.0 | .059074 |
| 320. | .0036 | .02792 | 217.3 | .083466 | 320. | .0048 | .02796 | 217.4 | .062590 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| .5 MPa Isobar | | | | | .6 MPa Isobar | | | | |
|---------------|--------------------|---------------------------|-------------------------------|-----------------------------------|---------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 54.416 | 1.3065 | .20355 | 4867.8 | .000937 | * 54.428 | 1.3066 | .20370 | 4870.9 | .000937 |
| 54. | 1.2996 | .20073 | 4698.2 | .000928 | 54. | 1.2997 | .20078 | 4702.3 | .000928 |
| 58. | 1.2908 | .19717 | 4481.7 | .000917 | 58. | 1.2909 | .19722 | 4485.5 | .000917 |
| 60. | 1.2820 | .19377 | 4266.4 | .000907 | 60. | 1.2821 | .19382 | 4270.1 | .000907 |
| 62. | 1.2732 | .19050 | 4055.4 | .000897 | 62. | 1.2733 | .19055 | 4058.9 | .000898 |
| 64. | 1.2643 | .18735 | 3850.7 | .000889 | 64. | 1.2644 | .18740 | 3854.0 | .000889 |
| 66. | 1.2554 | .18429 | 3653.8 | .000880 | 66. | 1.2555 | .18435 | 3656.9 | .000881 |
| 68. | 1.2466 | .18132 | 3465.5 | .000872 | 68. | 1.2465 | .18137 | 3468.5 | .000873 |
| 70. | 1.2376 | .17840 | 3296.3 | .000864 | 70. | 1.2375 | .17846 | 3289.1 | .000865 |
| 72. | 1.2283 | .17554 | 3116.3 | .000857 | 72. | 1.2284 | .17559 | 3119.0 | .000857 |
| 74. | 1.2191 | .17272 | 2955.6 | .000849 | 74. | 1.2193 | .17277 | 2958.2 | .000849 |
| 76. | 1.2099 | .16993 | 2803.9 | .000841 | 76. | 1.2100 | .16999 | 2806.4 | .000841 |
| 78. | 1.2006 | .16716 | 2660.9 | .000833 | 78. | 1.2007 | .16722 | 2663.3 | .000833 |
| 80. | 1.1912 | .16441 | 2526.4 | .000825 | 80. | 1.1914 | .16448 | 2528.7 | .000825 |
| 82. | 1.1817 | .16167 | 2399.7 | .000816 | 82. | 1.1819 | .16174 | 2402.0 | .000816 |
| 84. | 1.1721 | .15894 | 2280.6 | .000807 | 84. | 1.1723 | .15901 | 2282.8 | .000808 |
| 86. | 1.1625 | .15621 | 2168.6 | .000798 | 86. | 1.1627 | .15628 | 2170.7 | .000799 |
| 88. | 1.1527 | .15348 | 2063.2 | .000789 | 88. | 1.1529 | .15355 | 2055.2 | .000790 |
| 90. | 1.1429 | .15073 | 1964.0 | .000780 | 90. | 1.1431 | .15081 | 1966.0 | .000780 |
| 92. | 1.1329 | .14798 | 1870.6 | .000770 | 92. | 1.1331 | .14806 | 1872.5 | .000770 |
| 94. | 1.1227 | .14522 | 1782.5 | .000759 | 94. | 1.1230 | .14530 | 1784.4 | .000760 |
| 96. | 1.1125 | .14244 | 1699.4 | .000748 | 96. | 1.1127 | .14252 | 1701.2 | .000749 |
| 98. | 1.1020 | .13964 | 1620.9 | .000737 | 98. | 1.1023 | .13973 | 1622.7 | .000737 |
| 100. | 1.0914 | .13683 | 1546.7 | .000725 | 100. | 1.0917 | .13692 | 1548.4 | .000726 |
| 102. | 1.0807 | .13399 | 1476.4 | .000713 | 102. | 1.0810 | .13408 | 1478.1 | .000713 |
| 104. | 1.0697 | .13112 | 1409.7 | .000699 | 104. | 1.0700 | .13122 | 1411.5 | .000700 |
| 106. | 1.0585 | .12823 | 1346.4 | .000686 | 106. | 1.0588 | .12834 | 1348.1 | .000687 |
| 108. | 1.0470 | .12531 | 1286.1 | .000672 | 108. | 1.0474 | .12542 | 1287.8 | .000672 |
| * 108.806 | 1.0423 | .12413 | 1262.6 | .000666 | 110. | 1.0356 | .12247 | 1230.4 | .000657 |
| * 108.806 | .0197 | .01035 | 87.9 | .004695 | * 111.457 | 1.0269 | .12030 | 1190.2 | .000646 |
| 110. | .0194 | .01046 | 83.8 | .004866 | * 111.457 | .0235 | .01071 | 85.3 | .003972 |
| 112. | .0190 | .01065 | 85.3 | .005153 | 112. | .0233 | .01076 | 85.7 | .004040 |
| 114. | .0185 | .01084 | 86.8 | .005443 | 114. | .0227 | .01094 | 87.2 | .004290 |
| 116. | .0181 | .01104 | 88.3 | .005735 | 116. | .0222 | .01113 | 88.7 | .004542 |
| 118. | .0177 | .01123 | 89.8 | .006029 | 118. | .0216 | .01132 | 90.2 | .004795 |
| 120. | .0173 | .01142 | 91.3 | .006325 | 120. | .0212 | .01151 | 91.7 | .005049 |
| 122. | .0170 | .01161 | 92.7 | .006625 | 122. | .0207 | .01170 | 93.1 | .005306 |
| 124. | .0166 | .01180 | 94.2 | .006926 | 124. | .0203 | .01189 | 94.6 | .005564 |
| 126. | .0163 | .01200 | 95.7 | .007231 | 126. | .0199 | .01208 | 96.1 | .005824 |
| 128. | .0160 | .01219 | 97.2 | .007539 | 128. | .0195 | .01227 | 97.5 | .006086 |
| 130. | .0157 | .01238 | 98.7 | .007849 | 130. | .0191 | .01246 | 99.0 | .006350 |
| 132. | .0154 | .01257 | 100.1 | .008162 | 132. | .0187 | .01266 | 100.5 | .006617 |
| 134. | .0152 | .01277 | 101.6 | .008478 | 134. | .0184 | .01285 | 101.9 | .006886 |
| 136. | .0149 | .01296 | 103.0 | .008798 | 136. | .0181 | .01304 | 103.4 | .007157 |
| 138. | .0146 | .01315 | 104.5 | .009120 | 138. | .0178 | .01323 | 104.8 | .007430 |
| 140. | .0144 | .01334 | 105.9 | .009446 | 140. | .0175 | .01342 | 106.3 | .007706 |
| 142. | .0142 | .01353 | 107.4 | .009775 | 142. | .0172 | .01361 | 107.7 | .007985 |
| 144. | .0140 | .01373 | 108.8 | .010107 | 144. | .0169 | .01380 | 109.1 | .008266 |
| 146. | .0137 | .01392 | 110.3 | .010444 | 146. | .0166 | .01399 | 110.6 | .008551 |
| 148. | .0135 | .01411 | 111.7 | .010784 | 148. | .0164 | .01419 | 112.0 | .008838 |
| 150. | .0133 | .01430 | 113.1 | .011128 | 150. | .0161 | .01438 | 113.4 | .009130 |
| 152. | .0131 | .01450 | 114.5 | .011478 | 152. | .0159 | .01457 | 114.8 | .009426 |
| 154. | .0129 | .01470 | 116.0 | .011835 | 154. | .0156 | .01478 | 116.2 | .009727 |
| 156. | .0128 | .01487 | 117.4 | .012176 | 156. | .0154 | .01495 | 117.7 | .010015 |
| 158. | .0126 | .01504 | 118.8 | .012516 | 158. | .0152 | .01512 | 119.1 | .010299 |
| 160. | .0124 | .01522 | 120.2 | .012861 | 160. | .0150 | .01529 | 120.5 | .010589 |
| 165. | .0120 | .01565 | 123.7 | .013743 | 165. | .0145 | .01572 | 123.9 | .011330 |
| 170. | .0116 | .01609 | 127.1 | .014649 | 170. | .0140 | .01615 | 127.4 | .012091 |
| 175. | .0113 | .01653 | 130.5 | .015575 | 175. | .0136 | .01659 | 130.8 | .012868 |
| 180. | .0109 | .01696 | 133.9 | .016521 | 180. | .0132 | .01702 | 134.2 | .013662 |
| 185. | .0106 | .01739 | 137.3 | .017486 | 185. | .0128 | .01745 | 137.5 | .014471 |
| 190. | .0103 | .01782 | 140.6 | .018469 | 190. | .0124 | .01788 | 140.8 | .015295 |
| 195. | .0100 | .01824 | 143.9 | .019471 | 195. | .0121 | .01830 | 144.1 | .016135 |
| 200. | .0098 | .01866 | 147.2 | .020490 | 200. | .0118 | .01872 | 147.4 | .016989 |
| 210. | .0093 | .01949 | 153.6 | .022584 | 210. | .0112 | .01954 | 153.8 | .018742 |
| 220. | .0088 | .02031 | 159.9 | .024749 | 220. | .0106 | .02036 | 160.1 | .020554 |
| 230. | .0084 | .02111 | 166.1 | .026984 | 230. | .0102 | .02116 | 166.3 | .022424 |
| 240. | .0081 | .02191 | 172.2 | .029288 | 240. | .0097 | .02196 | 172.4 | .024351 |
| 250. | .0078 | .02269 | 178.2 | .031660 | 250. | .0093 | .02274 | 178.4 | .026335 |
| 260. | .0074 | .02347 | 184.1 | .034099 | 260. | .0089 | .02352 | 184.2 | .028373 |
| 270. | .0072 | .02424 | 189.9 | .036603 | 270. | .0086 | .02429 | 190.0 | .030466 |
| 280. | .0069 | .02500 | 195.6 | .039171 | 280. | .0083 | .02505 | 195.7 | .032612 |
| 290. | .0067 | .02576 | 201.2 | .041801 | 290. | .0080 | .02581 | 201.3 | .034810 |
| 300. | .0064 | .02651 | 206.7 | .044491 | 300. | .0077 | .02656 | 206.8 | .037057 |
| 310. | .0062 | .02726 | 212.1 | .047243 | 310. | .0075 | .02731 | 212.2 | .039355 |
| 320. | .0060 | .02801 | 217.5 | .050062 | 320. | .0072 | .02806 | 217.6 | .041710 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| .7 MPa Isobar | | | | | .8 MPa Isobar | | | | |
|---------------|------------------------------|---------------------------|-------------------------------|--|---------------|------------------------------|---------------------------|-------------------------------|--|
| Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s | Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s |
| * 54.439 | 1.3066 | .20373 | 4874.0 | .000937 | * 54.451 | 1.3067 | .20375 | 4877.1 | .000938 |
| 56. | 1.2998 | .20082 | 4706.4 | .000928 | 56. | 1.2999 | .20087 | 4710.5 | .000928 |
| 58. | 1.2911 | .19726 | 4489.4 | .000917 | 58. | 1.2912 | .19731 | 4493.3 | .000917 |
| 60. | 1.2823 | .19386 | 4273.7 | .000907 | 60. | 1.2824 | .19391 | 4277.4 | .000907 |
| 62. | 1.2734 | .19060 | 4062.3 | .000898 | 62. | 1.2736 | .19065 | 4065.8 | .000898 |
| 64. | 1.2646 | .18745 | 3857.3 | .000889 | 64. | 1.2647 | .18750 | 3860.6 | .000889 |
| 66. | 1.2557 | .18440 | 3650.0 | .000881 | 66. | 1.2558 | .18445 | 3663.2 | .000881 |
| 68. | 1.2467 | .18142 | 3471.4 | .000873 | 68. | 1.2468 | .18147 | 3474.4 | .000873 |
| 70. | 1.2377 | .17851 | 3291.9 | .000865 | 70. | 1.2378 | .17856 | 3294.8 | .000865 |
| 72. | 1.2286 | .17565 | 3121.7 | .000857 | 72. | 1.2287 | .17571 | 3124.4 | .000857 |
| 74. | 1.2194 | .17283 | 2960.8 | .000849 | 74. | 1.2196 | .17289 | 2963.4 | .000850 |
| 76. | 1.2102 | .17005 | 2808.9 | .000841 | 76. | 1.2104 | .17011 | 2811.4 | .000842 |
| 78. | 1.2009 | .16728 | 2665.7 | .000833 | 78. | 1.2011 | .16735 | 2668.1 | .000834 |
| 80. | 1.1915 | .16454 | 2531.0 | .000825 | 80. | 1.1917 | .16460 | 2533.3 | .000826 |
| 82. | 1.1821 | .16181 | 2404.2 | .000817 | 82. | 1.1823 | .16187 | 2406.4 | .000817 |
| 84. | 1.1725 | .15908 | 2284.9 | .000808 | 84. | 1.1727 | .15915 | 2287.1 | .000809 |
| 86. | 1.1629 | .15635 | 2172.8 | .000799 | 86. | 1.1631 | .15642 | 2174.9 | .000800 |
| 88. | 1.1531 | .15362 | 2067.2 | .000790 | 88. | 1.1534 | .15369 | 2069.3 | .000791 |
| 90. | 1.1433 | .15088 | 1967.9 | .000780 | 90. | 1.1435 | .15096 | 1969.9 | .000781 |
| 92. | 1.1333 | .14814 | 1874.4 | .000771 | 92. | 1.1335 | .14822 | 1876.3 | .000771 |
| 94. | 1.1232 | .14538 | 1786.2 | .000760 | 94. | 1.1235 | .14546 | 1788.1 | .000761 |
| 96. | 1.1130 | .14261 | 1703.1 | .000749 | 96. | 1.1132 | .14269 | 1704.9 | .000750 |
| 98. | 1.1026 | .13982 | 1624.5 | .000738 | 98. | 1.1028 | .13990 | 1626.3 | .000739 |
| 100. | 1.0920 | .13701 | 1550.2 | .000726 | 100. | 1.0923 | .13710 | 1552.0 | .000727 |
| 102. | 1.0813 | .13418 | 1479.9 | .000714 | 102. | 1.0816 | .13427 | 1481.6 | .000715 |
| 104. | 1.0703 | .13132 | 1413.2 | .000701 | 104. | 1.0706 | .13142 | 1414.9 | .000702 |
| 106. | 1.0591 | .12844 | 1349.8 | .000687 | 106. | 1.0595 | .12854 | 1351.6 | .000688 |
| 108. | 1.0477 | .12552 | 1289.6 | .000673 | 108. | 1.0481 | .12563 | 1291.3 | .000674 |
| 110. | 1.0360 | .12258 | 1232.1 | .000658 | 110. | 1.0364 | .12269 | 1233.8 | .000659 |
| 112. | 1.0240 | .11960 | 1177.2 | .000643 | 112. | 1.0244 | .11972 | 1178.9 | .000644 |
| * 113.#01 | 1.0129 | .11668 | 1129.8 | .000628 | 114. | 1.0121 | .11670 | 1126.4 | .000627 |
| * 113.#01 | .0272 | .01103 | 87.5 | .003436 | * 115.#14 | 1.0000 | .11378 | 1078.1 | .000611 |
| 114. | .0271 | .01105 | 87.7 | .003458 | * 115.#14 | .0310 | .01134 | 89.6 | .003022 |
| 116. | .0264 | .01123 | 89.1 | .003682 | 116. | .0309 | .01134 | 89.6 | .003031 |
| 118. | .0258 | .01142 | 90.6 | .003907 | 118. | .0301 | .01153 | 91.1 | .003234 |
| 120. | .0252 | .01161 | 92.1 | .004132 | 120. | .0293 | .01171 | 92.5 | .003438 |
| 122. | .0245 | .01179 | 93.6 | .004358 | 122. | .0286 | .01189 | 94.0 | .003642 |
| 124. | .0241 | .01198 | 95.0 | .004586 | 124. | .0280 | .01208 | 95.4 | .003847 |
| 126. | .0235 | .01217 | 96.5 | .004814 | 126. | .0273 | .01227 | 96.9 | .004053 |
| 128. | .0231 | .01236 | 97.9 | .005045 | 128. | .0268 | .01245 | 98.3 | .004260 |
| 130. | .0226 | .01255 | 99.4 | .005276 | 130. | .0262 | .01264 | 99.8 | .004467 |
| 132. | .0222 | .01274 | 100.8 | .005510 | 132. | .0257 | .01283 | 101.2 | .004676 |
| 134. | .0217 | .01293 | 102.3 | .005745 | 134. | .0252 | .01302 | 102.7 | .004886 |
| 136. | .0213 | .01312 | 103.7 | .005982 | 136. | .0247 | .01320 | 104.1 | .005098 |
| 138. | .0210 | .01331 | 105.2 | .006220 | 138. | .0242 | .01339 | 105.5 | .005311 |
| 140. | .0205 | .01350 | 106.6 | .006461 | 140. | .0238 | .01358 | 107.0 | .005525 |
| 142. | .0202 | .01369 | 108.0 | .006704 | 142. | .0234 | .01377 | 108.4 | .005741 |
| 144. | .0199 | .01388 | 109.5 | .006949 | 144. | .0230 | .01396 | 109.8 | .005959 |
| 146. | .0196 | .01407 | 110.9 | .007197 | 146. | .0226 | .01415 | 111.2 | .006180 |
| 148. | .0193 | .01426 | 112.3 | .007447 | 148. | .0222 | .01434 | 112.7 | .006402 |
| 150. | .0190 | .01446 | 113.7 | .007701 | 150. | .0219 | .01454 | 114.1 | .006628 |
| 152. | .0187 | .01465 | 115.1 | .007958 | 152. | .0215 | .01473 | 115.5 | .006856 |
| 154. | .0184 | .01485 | 116.5 | .008221 | 154. | .0212 | .01494 | 116.9 | .007090 |
| 156. | .0181 | .01503 | 117.9 | .008486 | 156. | .0209 | .01511 | 118.3 | .007309 |
| 158. | .0179 | .01521 | 119.3 | .008715 | 158. | .0205 | .01527 | 119.7 | .007526 |
| 160. | .0175 | .01536 | 120.7 | .008965 | 160. | .0202 | .01543 | 121.0 | .007747 |
| 165. | .0170 | .01579 | 124.2 | .009606 | 165. | .0195 | .01585 | 124.5 | .008312 |
| 170. | .0164 | .01622 | 127.6 | .010263 | 170. | .0189 | .01628 | 127.9 | .008891 |
| 175. | .0159 | .01665 | 131.0 | .010934 | 175. | .0183 | .01671 | 131.3 | .009483 |
| 180. | .0154 | .01708 | 134.4 | .011619 | 180. | .0177 | .01714 | 134.7 | .010087 |
| 185. | .0150 | .01751 | 137.7 | .012317 | 185. | .0172 | .01757 | 138.0 | .010701 |
| 190. | .0145 | .01793 | 141.1 | .013028 | 190. | .0167 | .01799 | 141.3 | .011327 |
| 195. | .0141 | .01836 | 144.3 | .013752 | 195. | .0162 | .01841 | 144.6 | .011964 |
| 200. | .0138 | .01877 | 147.6 | .014488 | 200. | .0158 | .01883 | 147.8 | .012612 |
| 210. | .0131 | .01960 | 154.0 | .015598 | 210. | .0150 | .01965 | 154.2 | .013939 |
| 220. | .0124 | .02041 | 160.3 | .017558 | 220. | .0142 | .02047 | 160.5 | .015310 |
| 230. | .0119 | .02122 | 166.5 | .019167 | 230. | .0136 | .02127 | 166.7 | .016724 |
| 240. | .0114 | .02201 | 172.5 | .020825 | 240. | .0130 | .02206 | 172.7 | .018180 |
| 250. | .0109 | .02279 | 178.5 | .022531 | 250. | .0125 | .02284 | 178.7 | .019678 |
| 260. | .0104 | .02357 | 184.4 | .024284 | 260. | .0120 | .02362 | 184.5 | .021216 |
| 270. | .0100 | .02434 | 190.2 | .026083 | 270. | .0115 | .02438 | 190.3 | .022795 |
| 280. | .0097 | .02510 | 195.8 | .027927 | 280. | .0111 | .02515 | 196.0 | .024413 |
| 290. | .0093 | .02586 | 201.4 | .029815 | 290. | .0107 | .02590 | 201.6 | .026070 |
| 300. | .0090 | .02661 | 206.9 | .031746 | 300. | .0103 | .02665 | 207.1 | .027763 |
| 310. | .0087 | .02735 | 212.4 | .033721 | 310. | .0100 | .02740 | 212.5 | .029495 |
| 320. | .0084 | .02810 | 217.7 | .035744 | 320. | .0097 | .02815 | 217.8 | .031269 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| .9 MPa Isobar | | | | | 1.0 MPa Isobar | | | | |
|---------------|---------|---------------|--------------|---------------------|----------------|---------|---------------|--------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s | K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s |
| * 54.462 | 1.3068 | .20377 | 4880.2 | .000938 | * 54.474 | 1.3068 | .20380 | 4883.4 | .000938 |
| 56. | 1.3001 | .20091 | 4714.6 | .000928 | 56. | 1.3002 | .20096 | 4718.8 | .000928 |
| 58. | 1.2913 | .19736 | 4497.2 | .000917 | 58. | 1.2914 | .19740 | 4501.0 | .000918 |
| 60. | 1.2825 | .19396 | 4281.0 | .000907 | 60. | 1.2826 | .19401 | 4284.7 | .000908 |
| 62. | 1.2737 | .19070 | 4069.2 | .000898 | 62. | 1.2738 | .19075 | 4072.7 | .000898 |
| 64. | 1.2648 | .18755 | 3863.8 | .000890 | 64. | 1.2650 | .18760 | 3867.1 | .000890 |
| 66. | 1.2559 | .18450 | 3666.3 | .000881 | 66. | 1.2561 | .18455 | 3669.4 | .000882 |
| 68. | 1.2470 | .18153 | 3477.4 | .000873 | 68. | 1.2471 | .18158 | 3480.3 | .000874 |
| 70. | 1.2379 | .17862 | 3297.6 | .000866 | 70. | 1.2381 | .17867 | 3300.4 | .000866 |
| 72. | 1.2289 | .17576 | 3127.1 | .000858 | 72. | 1.2290 | .17582 | 3129.8 | .000858 |
| 74. | 1.2197 | .17295 | 2966.0 | .000850 | 74. | 1.2199 | .17301 | 2958.5 | .000850 |
| 76. | 1.2105 | .17017 | 2813.8 | .000842 | 76. | 1.2107 | .17023 | 2816.3 | .000842 |
| 78. | 1.2012 | .16741 | 2670.5 | .000834 | 78. | 1.2014 | .16747 | 2672.9 | .000834 |
| 80. | 1.1919 | .16467 | 2535.6 | .000826 | 80. | 1.1921 | .16473 | 2537.9 | .000826 |
| 82. | 1.1824 | .16194 | 2408.6 | .000818 | 82. | 1.1826 | .16200 | 2410.8 | .000818 |
| 84. | 1.1729 | .15921 | 2289.2 | .000809 | 84. | 1.1731 | .15928 | 2291.4 | .000809 |
| 86. | 1.1633 | .15649 | 2176.9 | .000800 | 86. | 1.1635 | .15656 | 2179.0 | .000801 |
| 88. | 1.1536 | .15377 | 2071.3 | .000791 | 88. | 1.1538 | .15384 | 2073.3 | .000791 |
| 90. | 1.1437 | .15103 | 1971.9 | .000781 | 90. | 1.1440 | .15111 | 1973.8 | .000782 |
| 92. | 1.1338 | .14829 | 1878.2 | .000772 | 92. | 1.1340 | .14837 | 1880.2 | .000772 |
| 94. | 1.1237 | .14554 | 1790.0 | .000761 | 94. | 1.1239 | .14562 | 1791.9 | .000762 |
| 96. | 1.1135 | .14277 | 1706.7 | .000750 | 96. | 1.1137 | .14286 | 1708.6 | .000751 |
| 98. | 1.1031 | .13999 | 1628.1 | .000739 | 98. | 1.1034 | .14008 | 1629.9 | .000740 |
| 100. | 1.0926 | .13719 | 1553.8 | .000727 | 100. | 1.0929 | .13728 | 1555.6 | .000728 |
| 102. | 1.0819 | .13436 | 1483.4 | .000715 | 102. | 1.0822 | .13446 | 1485.2 | .000716 |
| 104. | 1.0709 | .13151 | 1416.7 | .000702 | 104. | 1.0713 | .13161 | 1418.4 | .000703 |
| 106. | 1.0598 | .12864 | 1353.3 | .000689 | 106. | 1.0601 | .12874 | 1355.0 | .000690 |
| 108. | 1.0484 | .12574 | 1293.0 | .000675 | 108. | 1.0488 | .12584 | 1294.7 | .000676 |
| 110. | 1.0368 | .12280 | 1235.6 | .000660 | 110. | 1.0372 | .12291 | 1237.3 | .000661 |
| 112. | 1.0248 | .11983 | 1180.7 | .000645 | 112. | 1.0253 | .11995 | 1182.4 | .000645 |
| 114. | 1.0126 | .11682 | 1128.1 | .000628 | 114. | 1.0130 | .11694 | 1129.9 | .000629 |
| 116. | .9999 | .11377 | 1077.7 | .000611 | 116. | 1.0004 | .11390 | 1079.5 | .000612 |
| * 117.843 | .9879 | .11092 | 1033.0 | .000594 | 118. | .9873 | .11081 | 1031.0 | .000594 |
| * 117.843 | .0347 | .01163 | 91.5 | .002690 | * 119.623 | .9764 | .10826 | 992.9 | .000579 |
| 118. | .0347 | .01164 | 91.6 | .002705 | * 119.623 | .0385 | .01190 | 93.3 | .002419 |
| 120. | .0337 | .01182 | 93.0 | .002893 | 120. | .0383 | .01194 | 93.6 | .002452 |
| 122. | .0329 | .01200 | 94.5 | .003081 | 122. | .0373 | .01211 | 95.0 | .002627 |
| 124. | .0320 | .01218 | 95.9 | .003269 | 124. | .0363 | .01229 | 96.4 | .002802 |
| 126. | .0313 | .01237 | 97.3 | .003457 | 126. | .0354 | .01247 | 97.8 | .002976 |
| 128. | .0306 | .01255 | 98.8 | .003646 | 128. | .0345 | .01265 | 99.2 | .003151 |
| 130. | .0299 | .01273 | 100.2 | .003835 | 130. | .0338 | .01283 | 100.7 | .003326 |
| 132. | .0293 | .01292 | 101.7 | .004025 | 132. | .0330 | .01302 | 102.1 | .003501 |
| 134. | .0287 | .01311 | 103.1 | .004216 | 134. | .0323 | .01320 | 103.5 | .003677 |
| 136. | .0281 | .01329 | 104.5 | .004408 | 136. | .0316 | .01338 | 104.9 | .003854 |
| 138. | .0276 | .01348 | 105.9 | .004601 | 138. | .0310 | .01357 | 106.3 | .004031 |
| 140. | .0271 | .01367 | 107.4 | .004795 | 140. | .0304 | .01376 | 107.8 | .004209 |
| 142. | .0266 | .01385 | 108.8 | .004991 | 142. | .0298 | .01394 | 109.2 | .004389 |
| 144. | .0261 | .01404 | 110.2 | .005188 | 144. | .0293 | .01413 | 110.6 | .004570 |
| 146. | .0256 | .01423 | 111.6 | .005387 | 146. | .0288 | .01432 | 112.0 | .004752 |
| 148. | .0252 | .01443 | 113.0 | .005588 | 148. | .0283 | .01451 | 113.4 | .004936 |
| 150. | .0248 | .01462 | 114.4 | .005792 | 150. | .0278 | .01471 | 114.8 | .005122 |
| 152. | .0244 | .01482 | 115.8 | .005999 | 152. | .0273 | .01491 | 116.2 | .005311 |
| 154. | .0240 | .01502 | 117.2 | .006210 | 154. | .0269 | .01511 | 117.5 | .005505 |
| 156. | .0236 | .01519 | 118.6 | .006407 | 156. | .0265 | .01527 | 118.9 | .005684 |
| 158. | .0233 | .01534 | 120.0 | .006601 | 158. | .0261 | .01543 | 120.3 | .005860 |
| 160. | .0229 | .01551 | 121.4 | .006798 | 160. | .0257 | .01559 | 121.7 | .006039 |
| 165. | .0221 | .01593 | 124.8 | .007305 | 165. | .0247 | .01600 | 125.1 | .006498 |
| 170. | .0214 | .01635 | 128.2 | .007824 | 170. | .0239 | .01642 | 128.5 | .006969 |
| 175. | .0207 | .01678 | 131.6 | .008354 | 175. | .0231 | .01684 | 131.9 | .007450 |
| 180. | .0200 | .01721 | 134.9 | .008894 | 180. | .0223 | .01727 | 135.2 | .007940 |
| 185. | .0194 | .01763 | 138.2 | .009444 | 185. | .0217 | .01769 | 138.5 | .008438 |
| 190. | .0188 | .01805 | 141.5 | .010004 | 190. | .0210 | .01811 | 141.8 | .008945 |
| 195. | .0183 | .01847 | 144.8 | .010573 | 195. | .0204 | .01853 | 145.0 | .009440 |
| 200. | .0178 | .01889 | 148.0 | .011152 | 200. | .0198 | .01894 | 148.3 | .009984 |
| 210. | .0169 | .01971 | 154.4 | .012338 | 210. | .0188 | .01976 | 154.6 | .011057 |
| 220. | .0161 | .02052 | 160.7 | .013562 | 220. | .0179 | .02057 | 160.9 | .012153 |
| 230. | .0153 | .02132 | 166.8 | .014824 | 230. | .0171 | .02137 | 167.0 | .013303 |
| 240. | .0146 | .02211 | 172.9 | .016123 | 240. | .0163 | .02216 | 173.1 | .014477 |
| 250. | .0140 | .02289 | 178.8 | .017458 | 250. | .0156 | .02294 | 179.0 | .015683 |
| 260. | .0135 | .02367 | 184.7 | .018830 | 260. | .0150 | .02372 | 184.9 | .016922 |
| 270. | .0129 | .02443 | 190.5 | .020238 | 270. | .0144 | .02448 | 190.6 | .018192 |
| 280. | .0125 | .02519 | 196.1 | .021680 | 280. | .0139 | .02524 | 196.3 | .019493 |
| 290. | .0120 | .02595 | 201.7 | .023156 | 290. | .0134 | .02600 | 201.8 | .020825 |
| 300. | .0116 | .02670 | 207.2 | .024665 | 300. | .0129 | .02675 | 207.3 | .022186 |
| 310. | .0112 | .02745 | 212.6 | .026207 | 310. | .0125 | .02749 | 212.7 | .023578 |
| 320. | .0109 | .02820 | 217.9 | .027788 | 320. | .0121 | .02824 | 218.1 | .025003 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 1.5 MPa Isobar | | | | | 2.0 MPa Isobar | | | | |
|----------------|--------------------|---------------------------|-------------------------------|------------------------------------|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity -cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 54.531 | 1.3072 | .20392 | 4898.9 | .000938 | * 54.589 | 1.3075 | .20404 | 4914.3 | .000939 |
| 56. | 1.3008 | .20119 | 4739.4 | .000929 | 56. | 1.3013 | .20142 | 4760.1 | .000930 |
| 58. | 1.2920 | .19764 | 4520.5 | .000919 | 58. | 1.2926 | .19787 | 4539.9 | .000920 |
| 60. | 1.2832 | .19425 | 4303.0 | .000909 | 60. | 1.2839 | .19449 | 4321.3 | .000910 |
| 62. | 1.2744 | .19099 | 4090.0 | .000900 | 62. | 1.2751 | .19124 | 4107.4 | .000901 |
| 64. | 1.2656 | .18785 | 3883.6 | .000891 | 64. | 1.2663 | .18810 | 3900.0 | .000892 |
| 66. | 1.2567 | .18481 | 3685.0 | .000883 | 66. | 1.2574 | .18506 | 3700.6 | .000884 |
| 68. | 1.2478 | .18184 | 3495.2 | .000875 | 68. | 1.2485 | .18211 | 3510.0 | .000876 |
| 70. | 1.2388 | .17894 | 3314.6 | .000867 | 70. | 1.2395 | .17922 | 3328.8 | .000869 |
| 72. | 1.2298 | .17610 | 3143.4 | .000859 | 72. | 1.2305 | .17638 | 3156.9 | .000861 |
| 74. | 1.2207 | .17329 | 2981.5 | .000852 | 74. | 1.2215 | .17358 | 2994.5 | .000853 |
| 76. | 1.2115 | .17052 | 2828.8 | .000844 | 76. | 1.2123 | .17082 | 2841.2 | .000846 |
| 78. | 1.2023 | .16778 | 2684.8 | .000836 | 78. | 1.2031 | .16808 | 2696.8 | .000838 |
| 80. | 1.1929 | .16505 | 2549.4 | .000828 | 80. | 1.1938 | .16536 | 2560.9 | .000830 |
| 82. | 1.1836 | .16233 | 2421.9 | .000820 | 82. | 1.1845 | .16266 | 2433.0 | .000822 |
| 84. | 1.1741 | .15962 | 2302.1 | .000811 | 84. | 1.1750 | .15996 | 2312.8 | .000813 |
| 86. | 1.1645 | .15691 | 2189.4 | .000803 | 86. | 1.1655 | .15726 | 2199.8 | .000805 |
| 88. | 1.1548 | .15420 | 2083.4 | .000794 | 88. | 1.1559 | .15456 | 2093.5 | .000796 |
| 90. | 1.1450 | .15148 | 1983.7 | .000784 | 90. | 1.1461 | .15185 | 1993.5 | .000786 |
| 92. | 1.1352 | .14876 | 1889.7 | .000774 | 92. | 1.1363 | .14914 | 1899.3 | .000777 |
| 94. | 1.1251 | .14602 | 1801.2 | .000764 | 94. | 1.1263 | .14642 | 1810.5 | .000767 |
| 96. | 1.1150 | .14327 | 1717.7 | .000754 | 96. | 1.1163 | .14368 | 1726.9 | .000756 |
| 98. | 1.1047 | .14051 | 1638.9 | .000743 | 98. | 1.1060 | .14093 | 1647.9 | .000746 |
| 100. | 1.0943 | .13772 | 1564.4 | .000731 | 100. | 1.0956 | .13816 | 1573.2 | .000734 |
| 102. | 1.0836 | .13492 | 1493.9 | .000719 | 102. | 1.0851 | .13538 | 1502.6 | .000722 |
| 104. | 1.0728 | .13209 | 1427.1 | .000707 | 104. | 1.0744 | .13257 | 1435.7 | .000710 |
| 106. | 1.0618 | .12924 | 1363.6 | .000693 | 106. | 1.0634 | .12974 | 1372.2 | .000697 |
| 108. | 1.0506 | .12636 | 1303.3 | .000680 | 108. | 1.0523 | .12688 | 1311.8 | .000684 |
| 110. | 1.0390 | .12346 | 1245.8 | .000665 | 110. | 1.0409 | .12400 | 1254.3 | .000670 |
| 112. | 1.0273 | .12052 | 1191.0 | .000650 | 112. | 1.0292 | .12108 | 1199.4 | .000655 |
| 114. | 1.0152 | .11754 | 1138.5 | .000634 | 114. | 1.0173 | .11814 | 1147.0 | .000639 |
| 116. | 1.0027 | .11453 | 1088.2 | .000618 | 116. | 1.0050 | .11515 | 1096.8 | .000623 |
| 118. | .9898 | .11148 | 1039.8 | .000600 | 118. | .9923 | .11213 | 1048.5 | .000606 |
| 120. | .9765 | .10837 | 993.2 | .000582 | 120. | .9792 | .10907 | 1002.1 | .000588 |
| 122. | .9627 | .10521 | 948.1 | .000562 | 122. | .9656 | .10595 | 957.2 | .000569 |
| 124. | .9483 | .10200 | 904.4 | .000541 | 124. | .9515 | .10278 | 913.7 | .000549 |
| 126. | .9331 | .09870 | 861.7 | .000519 | 126. | .9367 | .09955 | 871.4 | .000528 |
| * 126.985 | .9254 | .09705 | 841.1 | .000508 | 128. | .9211 | .09624 | 830.1 | .000505 |
| * 126.985 | .0582 | .01321 | 101.5 | .001555 | 130. | .9047 | .09284 | 789.4 | .000481 |
| 128. | .0572 | .01329 | 102.1 | .001626 | 132. | .8871 | .08935 | 749.2 | .000454 |
| 130. | .0555 | .01344 | 103.4 | .001763 | * 132.746 | .8802 | .08802 | 734.3 | .000444 |
| 132. | .0539 | .01360 | 104.7 | .001898 | * 132.746 | .0793 | .01453 | 109.0 | .001085 |
| 134. | .0524 | .01377 | 106.1 | .002033 | 134. | .0773 | .01460 | 109.7 | .001162 |
| 136. | .0510 | .01393 | 107.4 | .002167 | 136. | .0746 | .01472 | 110.8 | .001282 |
| 138. | .0498 | .01411 | 108.7 | .002300 | 138. | .0722 | .01486 | 112.0 | .001399 |
| 140. | .0486 | .01428 | 110.1 | .002433 | 140. | .0700 | .01500 | 113.2 | .001514 |
| 142. | .0475 | .01446 | 111.4 | .002566 | 142. | .0680 | .01516 | 114.4 | .001628 |
| 144. | .0465 | .01464 | 112.8 | .002699 | 144. | .0662 | .01532 | 115.6 | .001742 |
| 146. | .0455 | .01482 | 114.1 | .002833 | 146. | .0645 | .01549 | 116.8 | .001855 |
| 148. | .0446 | .01501 | 115.5 | .002968 | 148. | .0629 | .01567 | 118.1 | .001968 |
| 150. | .0437 | .01521 | 116.8 | .003104 | 150. | .0615 | .01587 | 119.3 | .002082 |
| 152. | .0429 | .01541 | 118.1 | .003242 | 152. | .0601 | .01608 | 120.6 | .002198 |
| 154. | .0421 | .01563 | 119.5 | .003385 | 154. | .0588 | .01631 | 121.9 | .002318 |
| 156. | .0413 | .01577 | 120.8 | .003510 | 156. | .0576 | .01641 | 123.2 | .002417 |
| 158. | .0406 | .01589 | 122.2 | .003631 | 158. | .0565 | .01648 | 124.4 | .002511 |
| 160. | .0399 | .01603 | 123.5 | .003755 | 160. | .0554 | .01657 | 125.7 | .002607 |
| 165. | .0383 | .01640 | 126.8 | .004075 | 165. | .0529 | .01687 | 128.9 | .002858 |
| 170. | .0369 | .01679 | 130.1 | .004402 | 170. | .0507 | .01723 | 132.1 | .003114 |
| 175. | .0355 | .01720 | 133.4 | .004735 | 175. | .0487 | .01760 | 135.3 | .003374 |
| 180. | .0343 | .01761 | 136.7 | .005074 | 180. | .0469 | .01798 | 138.5 | .003638 |
| 185. | .0332 | .01802 | 139.9 | .005418 | 185. | .0452 | .01837 | 141.6 | .003905 |
| 190. | .0321 | .01842 | 143.2 | .005766 | 190. | .0437 | .01877 | 144.8 | .004176 |
| 195. | .0312 | .01883 | 146.4 | .006120 | 195. | .0423 | .01916 | 147.9 | .004449 |
| 200. | .0303 | .01924 | 149.5 | .006479 | 200. | .0410 | .01956 | 151.0 | .004726 |
| 210. | .0286 | .02005 | 155.8 | .007213 | 210. | .0387 | .02035 | 157.2 | .005291 |
| 220. | .0271 | .02085 | 162.0 | .007967 | 220. | .0366 | .02114 | 163.2 | .005869 |
| 230. | .0258 | .02164 | 168.1 | .008743 | 230. | .0348 | .02192 | 169.2 | .006463 |
| 240. | .0246 | .02242 | 174.0 | .009539 | 240. | .0331 | .02269 | 175.1 | .007071 |
| 250. | .0236 | .02320 | 179.9 | .010357 | 250. | .0316 | .02346 | 180.9 | .007694 |
| 260. | .0226 | .02397 | 185.7 | .011195 | 260. | .0303 | .02422 | 186.7 | .008333 |
| 270. | .0217 | .02473 | 191.4 | .012054 | 270. | .0291 | .02498 | 192.3 | .008986 |
| 280. | .0209 | .02549 | 197.0 | .012934 | 280. | .0280 | .02573 | 197.9 | .009654 |
| 290. | .0201 | .02624 | 202.6 | .013832 | 290. | .0269 | .02648 | 203.4 | .010336 |
| 300. | .0194 | .02698 | 208.0 | .014750 | 300. | .0260 | .02722 | 208.8 | .011033 |
| 310. | .0188 | .02772 | 213.4 | .015688 | 310. | .0251 | .02796 | 214.1 | .011743 |
| 320. | .0181 | .02847 | 218.7 | .016649 | 320. | .0242 | .02870 | 219.4 | .012472 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 2.5 MPa Isobar | | | | | 3.0 MPa Isobar | | | | |
|----------------|---------|---------------|-----------|---------------------|----------------|---------|---------------|-----------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm**3 | W/m.K | g/cm.s | cm**2/s | K | g/cm**3 | W/m.K | g/cm.s | cm**2/s |
| * 54.646 | 1.3078 | .20416 | 4929.8 | .000939 | * 54.703 | 1.3081 | .20428 | 4945.2 | .000940 |
| 56. | 1.3019 | .20165 | 4780.8 | .000931 | 56. | 1.3025 | .20188 | 4801.6 | .000932 |
| 58. | 1.2932 | .19811 | 4559.4 | .000921 | 58. | 1.2938 | .19834 | 4578.9 | .000922 |
| 60. | 1.2845 | .19472 | 4339.7 | .000911 | 60. | 1.2851 | .19496 | 4358.1 | .000912 |
| 62. | 1.2757 | .19148 | 4124.7 | .000902 | 62. | 1.2763 | .19172 | 4142.1 | .000903 |
| 64. | 1.2669 | .18835 | 3916.4 | .000893 | 64. | 1.2676 | .18860 | 3932.9 | .000895 |
| 66. | 1.2581 | .18532 | 3716.2 | .000885 | 66. | 1.2587 | .18558 | 3731.9 | .000887 |
| 68. | 1.2492 | .18237 | 3524.9 | .000878 | 68. | 1.2499 | .18263 | 3539.8 | .000879 |
| 70. | 1.2403 | .17949 | 3342.9 | .000870 | 70. | 1.2410 | .17976 | 3357.1 | .000871 |
| 72. | 1.2313 | .17666 | 3170.4 | .000862 | 72. | 1.2320 | .17693 | 3184.0 | .000864 |
| 74. | 1.2222 | .17387 | 3007.4 | .000855 | 74. | 1.2230 | .17415 | 3020.4 | .000856 |
| 76. | 1.2131 | .17111 | 2853.6 | .000847 | 76. | 1.2139 | .17141 | 2866.0 | .000849 |
| 78. | 1.2039 | .16839 | 2708.7 | .000839 | 78. | 1.2048 | .16869 | 2720.7 | .000841 |
| 80. | 1.1947 | .16568 | 2572.4 | .000832 | 80. | 1.1956 | .16599 | 2583.8 | .000833 |
| 82. | 1.1854 | .16298 | 2444.1 | .000824 | 82. | 1.1863 | .16330 | 2455.2 | .000825 |
| 84. | 1.1760 | .16029 | 2323.5 | .000815 | 84. | 1.1769 | .16062 | 2334.2 | .000817 |
| 86. | 1.1665 | .15760 | 2210.2 | .000807 | 86. | 1.1675 | .15795 | 2220.5 | .000809 |
| 88. | 1.1569 | .15492 | 2103.5 | .000798 | 88. | 1.1579 | .15527 | 2113.6 | .000800 |
| 90. | 1.1472 | .15222 | 2003.2 | .000789 | 90. | 1.1483 | .15259 | 2013.0 | .000791 |
| 92. | 1.1374 | .14952 | 1908.8 | .000779 | 92. | 1.1385 | .14990 | 1918.3 | .000782 |
| 94. | 1.1275 | .14681 | 1819.9 | .000769 | 94. | 1.1287 | .14721 | 1829.1 | .000772 |
| 96. | 1.1175 | .14409 | 1736.0 | .000759 | 96. | 1.1187 | .14450 | 1745.1 | .000762 |
| 98. | 1.1073 | .14136 | 1656.8 | .000748 | 98. | 1.1086 | .14178 | 1665.7 | .000751 |
| 100. | 1.0970 | .13860 | 1582.0 | .000737 | 100. | 1.0984 | .13904 | 1590.8 | .000740 |
| 102. | 1.0865 | .13583 | 1511.3 | .000726 | 102. | 1.0880 | .13628 | 1519.9 | .000729 |
| 104. | 1.0759 | .13304 | 1444.2 | .000714 | 104. | 1.0774 | .13351 | 1452.7 | .000717 |
| 106. | 1.0651 | .13023 | 1380.6 | .000701 | 106. | 1.0667 | .13072 | 1389.1 | .000704 |
| 108. | 1.0540 | .12739 | 1320.2 | .000688 | 108. | 1.0557 | .12790 | 1328.6 | .000691 |
| 110. | 1.0427 | .12453 | 1262.7 | .000674 | 110. | 1.0445 | .12506 | 1271.0 | .000678 |
| 112. | 1.0312 | .12164 | 1207.9 | .000659 | 112. | 1.0331 | .12219 | 1216.2 | .000664 |
| 114. | 1.0194 | .11872 | 1155.5 | .000644 | 114. | 1.0214 | .11930 | 1163.8 | .000649 |
| 116. | 1.0072 | .11577 | 1105.3 | .000628 | 116. | 1.0094 | .11637 | 1113.7 | .000633 |
| 118. | .9947 | .11278 | 1057.1 | .000612 | 118. | .9971 | .11341 | 1065.6 | .000617 |
| 120. | .9818 | .10975 | 1010.8 | .000594 | 120. | .9843 | .11042 | 1019.4 | .000600 |
| 122. | .9684 | .10667 | 966.1 | .000576 | 122. | .9712 | .10738 | 974.9 | .000582 |
| 124. | .9546 | .10355 | 922.9 | .000556 | 124. | .9576 | .10430 | 931.9 | .000563 |
| 126. | .9401 | .10036 | 880.9 | .000536 | 126. | .9434 | .10116 | 890.2 | .000544 |
| 128. | .9249 | .96712 | 839.9 | .000514 | 128. | .9286 | .96797 | 849.5 | .000523 |
| 130. | .9089 | .93380 | 799.8 | .000491 | 130. | .9130 | .93472 | 809.8 | .000500 |
| 132. | .8919 | .90039 | 760.2 | .000466 | 132. | .8965 | .90138 | 770.8 | .000477 |
| 134. | .8738 | .86688 | 720.9 | .000439 | 134. | .8790 | .86797 | 732.2 | .000451 |
| 136. | .8540 | .83324 | 681.5 | .000409 | 136. | .8602 | .83445 | 693.7 | .000423 |
| * 137.547 | .8374 | .80033 | 650.4 | .000384 | 138. | .8396 | .80081 | 654.9 | .000393 |
| * 137.547 | .8203 | .76703 | 616.5 | .000358 | 140. | .8168 | .77702 | 615.3 | .000359 |
| 138. | .8012 | .73304 | 584.7 | .000331 | * 141.697 | .7949 | .74365 | 580.2 | .000325 |
| 140. | .7818 | .70009 | 554.5 | .000305 | * 141.697 | .7281 | .71794 | 544.6 | .000291 |
| 142. | .7620 | .66724 | 525.5 | .000278 | 142. | .7269 | .68472 | 511.6 | .000259 |
| 144. | .7418 | .63444 | 497.5 | .000250 | 144. | .7201 | .65166 | 480.9 | .000229 |
| 146. | .7212 | .60164 | 470.2 | .000222 | 146. | .7146 | .61888 | 452.4 | .000201 |
| 148. | .7002 | .56884 | 443.5 | .000194 | 148. | .7099 | .58645 | 425.6 | .000174 |
| 150. | .6788 | .53604 | 417.2 | .000166 | 150. | .7059 | .55445 | 400.2 | .000148 |
| 152. | .6570 | .50324 | 391.2 | .000138 | 152. | .7023 | .52285 | 375.6 | .000123 |
| 154. | .6348 | .47044 | 365.5 | .000110 | 154. | .6992 | .49165 | 352.2 | .000098 |
| 156. | .6122 | .43764 | 340.0 | .000082 | 156. | .6963 | .46085 | 329.6 | .000074 |
| 158. | .5892 | .40484 | 314.7 | .000054 | 158. | .6937 | .43045 | 307.6 | .000051 |
| 160. | .5658 | .37204 | 289.5 | .000026 | 160. | .6912 | .40045 | 286.6 | .000029 |
| 165. | .4687 | .2746 | 131.4 | .002124 | 165. | .0860 | .01820 | 134.3 | .001631 |
| 170. | .4555 | .2174 | 134.4 | .002338 | 170. | .0815 | .01837 | 137.1 | .001819 |
| 175. | .4627 | .21807 | 137.4 | .002556 | 175. | .0776 | .01862 | 139.9 | .002009 |
| 180. | .4602 | .21842 | 140.5 | .002776 | 180. | .0742 | .01891 | 142.8 | .002200 |
| 185. | .4579 | .21878 | 143.5 | .002997 | 185. | .0711 | .01924 | 145.7 | .002392 |
| 190. | .4558 | .21915 | 146.6 | .003221 | 190. | .0684 | .01958 | 148.6 | .002584 |
| 195. | .4539 | .21953 | 149.6 | .003447 | 195. | .0659 | .01993 | 151.6 | .002779 |
| 200. | .4521 | .21991 | 152.6 | .003675 | 200. | .0637 | .02029 | 154.5 | .002974 |
| 210. | .4490 | .22048 | 158.7 | .004138 | 210. | .0596 | .02103 | 160.3 | .003370 |
| 220. | .4463 | .22144 | 164.6 | .004611 | 220. | .0562 | .02177 | 166.1 | .003774 |
| 230. | .4439 | .22221 | 170.5 | .005096 | 230. | .0532 | .02252 | 171.9 | .004185 |
| 240. | .4417 | .22297 | 176.3 | .005591 | 240. | .0505 | .02327 | 177.6 | .004606 |
| 250. | .4398 | .22373 | 182.0 | .006098 | 250. | .0481 | .02402 | 183.3 | .005035 |
| 260. | .4381 | .22449 | 187.7 | .006617 | 260. | .0460 | .02476 | 188.8 | .005473 |
| 270. | .4365 | .22524 | 193.3 | .007146 | 270. | .0440 | .02550 | 194.4 | .005921 |
| 280. | .4351 | .22598 | 198.8 | .007688 | 280. | .0423 | .02624 | 199.8 | .006377 |
| 290. | .4338 | .22672 | 204.2 | .008240 | 290. | .0406 | .02697 | 205.2 | .006843 |
| 300. | .4325 | .22746 | 209.6 | .008803 | 300. | .0392 | .02770 | 210.5 | .007317 |
| 310. | .4314 | .22819 | 214.9 | .009377 | 310. | .0378 | .02843 | 215.7 | .007801 |
| 320. | .4304 | .22893 | 220.1 | .009966 | 320. | .0365 | .02917 | 220.9 | .008297 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 3.5 MPa Isobar | | | | | 4.0 MPa Isobar | | | | |
|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 54.760 | 1.3084 | .20440 | 4960.6 | .000941 | * 54.817 | 1.3088 | .20452 | 4975.9 | .000941 |
| 56. | 1.3031 | .20211 | 4822.4 | .000933 | 56. | 1.3036 | .20234 | 4843.3 | .000934 |
| 58. | 1.2944 | .19857 | 4598.5 | .000923 | 58. | 1.2950 | .19880 | 4618.1 | .000923 |
| 60. | 1.2857 | .19520 | 4376.5 | .000913 | 60. | 1.2863 | .19544 | 4395.0 | .000914 |
| 62. | 1.2769 | .19196 | 4159.5 | .000904 | 62. | 1.2776 | .19221 | 4176.9 | .000905 |
| 64. | 1.2682 | .18885 | 3949.4 | .000896 | 64. | 1.2688 | .18910 | 3965.9 | .000897 |
| 66. | 1.2594 | .18583 | 3747.5 | .000888 | 66. | 1.2601 | .18608 | 3763.2 | .000889 |
| 68. | 1.2506 | .18289 | 3554.7 | .000880 | 68. | 1.2512 | .18315 | 3569.5 | .000881 |
| 70. | 1.2417 | .18002 | 3371.3 | .000873 | 70. | 1.2424 | .18029 | 3385.5 | .000874 |
| 72. | 1.2327 | .17721 | 3197.5 | .000865 | 72. | 1.2335 | .17749 | 3211.1 | .000867 |
| 74. | 1.2238 | .17444 | 3033.3 | .000858 | 74. | 1.2245 | .17472 | 3046.3 | .000859 |
| 76. | 1.2147 | .17170 | 2878.4 | .000850 | 76. | 1.2155 | .17199 | 2890.9 | .000852 |
| 78. | 1.2056 | .16899 | 2732.6 | .000843 | 78. | 1.2064 | .16929 | 2745.5 | .000844 |
| 80. | 1.1964 | .16630 | 2595.3 | .000835 | 80. | 1.1973 | .16661 | 2606.8 | .000837 |
| 82. | 1.1872 | .16362 | 2466.3 | .000827 | 82. | 1.1881 | .16395 | 2477.3 | .000829 |
| 84. | 1.1778 | .16096 | 2344.9 | .000819 | 84. | 1.1788 | .16129 | 2355.6 | .000821 |
| 86. | 1.1684 | .15829 | 2230.9 | .000811 | 86. | 1.1694 | .15863 | 2241.2 | .000813 |
| 88. | 1.1589 | .15562 | 2123.6 | .000802 | 88. | 1.1600 | .15598 | 2133.6 | .000804 |
| 90. | 1.1494 | .15296 | 2022.7 | .000793 | 90. | 1.1504 | .15332 | 2032.5 | .000795 |
| 92. | 1.1397 | .15028 | 1927.8 | .000784 | 92. | 1.1408 | .15066 | 1937.3 | .000786 |
| 94. | 1.1299 | .14760 | 1838.4 | .000774 | 94. | 1.1310 | .14798 | 1847.6 | .000777 |
| 96. | 1.1199 | .14490 | 1754.1 | .000764 | 96. | 1.1212 | .14530 | 1763.1 | .000767 |
| 98. | 1.1099 | .14219 | 1674.6 | .000754 | 98. | 1.1112 | .14261 | 1683.4 | .000757 |
| 100. | 1.0997 | .13947 | 1599.5 | .000743 | 100. | 1.1011 | .13990 | 1608.2 | .000746 |
| 102. | 1.0894 | .13673 | 1528.5 | .000732 | 102. | 1.0908 | .13718 | 1537.0 | .000735 |
| 104. | 1.0789 | .13398 | 1461.2 | .000720 | 104. | 1.0804 | .13444 | 1469.6 | .000723 |
| 106. | 1.0682 | .13120 | 1397.5 | .000708 | 106. | 1.0698 | .13168 | 1405.8 | .000711 |
| 108. | 1.0574 | .12840 | 1336.9 | .000695 | 108. | 1.0590 | .12890 | 1345.2 | .000699 |
| 110. | 1.0463 | .12558 | 1279.3 | .000682 | 110. | 1.0480 | .12610 | 1287.5 | .000686 |
| 112. | 1.0350 | .12274 | 1224.5 | .000668 | 112. | 1.0368 | .12328 | 1232.7 | .000672 |
| 114. | 1.0234 | .11987 | 1172.1 | .000653 | 114. | 1.0254 | .12043 | 1180.3 | .000658 |
| 116. | 1.0115 | .11697 | 1122.0 | .000638 | 116. | 1.0137 | .11756 | 1130.3 | .000643 |
| 118. | .9994 | .11404 | 1074.0 | .000622 | 118. | 1.0016 | .11465 | 1082.3 | .000628 |
| 120. | .9868 | .11107 | 1027.9 | .000606 | 120. | .9893 | .11172 | 1036.3 | .000611 |
| 122. | .9739 | .10807 | 983.6 | .000588 | 122. | .9765 | .10875 | 992.1 | .000595 |
| 124. | .9605 | .10503 | 940.7 | .000570 | 124. | .9633 | .10575 | 949.4 | .000577 |
| 126. | .9466 | .10194 | 899.2 | .000551 | 126. | .9497 | .10270 | 908.1 | .000558 |
| 128. | .9321 | .09880 | 858.9 | .000531 | 128. | .9355 | .09961 | 868.1 | .000539 |
| 130. | .9169 | .09561 | 819.6 | .000509 | 130. | .9207 | .09647 | 829.1 | .000518 |
| 132. | .9009 | .09234 | 781.0 | .000487 | 132. | .9051 | .09327 | 791.0 | .000497 |
| 134. | .8840 | .08901 | 743.0 | .000463 | 134. | .8887 | .09001 | 753.5 | .000474 |
| 136. | .8659 | .08559 | 705.4 | .000437 | 136. | .8712 | .08668 | 716.5 | .000449 |
| 138. | .8463 | .08208 | 667.7 | .000408 | 138. | .8525 | .08327 | 679.7 | .000423 |
| 140. | .8249 | .07845 | 629.5 | .000377 | 140. | .8322 | .07978 | 642.7 | .000394 |
| 142. | .8009 | .07468 | 590.1 | .000342 | 142. | .8099 | .07618 | 605.0 | .000362 |
| 144. | .7731 | .07075 | 548.5 | .000300 | 144. | .7846 | .07248 | 566.0 | .000326 |
| * 145.365 | .7507 | .06794 | 517.5 | .000266 | 146. | .7550 | .06866 | 524.1 | .000283 |
| * 145.365 | .1579 | .02059 | 133.8 | .000409 | 148. | .7174 | .06473 | 476.4 | .000226 |
| 146. | .1540 | .02045 | 133.4 | .000451 | * 148.659 | .7018 | .06341 | 458.0 | .000202 |
| 148. | .1440 | .02022 | 132.9 | .000572 | * 148.659 | .1943 | .02467 | 145.3 | .000275 |
| 150. | .1363 | .02017 | 132.8 | .000684 | 150. | .1810 | .02398 | 143.0 | .000376 |
| 152. | .1301 | .02028 | 133.1 | .000793 | 152. | .1674 | .02358 | 141.4 | .000507 |
| 154. | .1248 | .02055 | 133.6 | .000903 | 154. | .1575 | .02364 | 140.6 | .000630 |
| 156. | .1203 | .02017 | 134.2 | .000978 | 156. | .1496 | .02271 | 140.4 | .000712 |
| 158. | .1162 | .01971 | 134.9 | .001041 | 158. | .1431 | .02175 | 140.5 | .000778 |
| 160. | .1126 | .01943 | 135.6 | .001107 | 160. | .1376 | .02114 | 140.8 | .000843 |
| 165. | .1050 | .01913 | 137.8 | .001276 | 165. | .1264 | .02035 | 142.2 | .001005 |
| 170. | .0988 | .01913 | 140.3 | .001447 | 170. | .1178 | .02009 | 144.0 | .001165 |
| 175. | .0936 | .01927 | 142.8 | .001618 | 175. | .1108 | .02006 | 146.2 | .001323 |
| 180. | .0891 | .01949 | 145.5 | .001788 | 180. | .1049 | .02017 | 148.5 | .001480 |
| 185. | .0851 | .01976 | 148.2 | .001959 | 185. | .0999 | .02036 | 151.0 | .001636 |
| 190. | .0816 | .02006 | 150.9 | .002130 | 190. | .0954 | .02060 | 153.5 | .001791 |
| 195. | .0785 | .02038 | 153.7 | .002302 | 195. | .0915 | .02088 | 156.2 | .001946 |
| 200. | .0756 | .02071 | 156.5 | .002475 | 200. | .0880 | .02117 | 158.8 | .002102 |
| 210. | .0706 | .02140 | 162.2 | .002823 | 210. | .0819 | .02181 | 164.2 | .002414 |
| 220. | .0663 | .02212 | 167.8 | .003177 | 220. | .0767 | .02249 | 169.7 | .002731 |
| 230. | .0626 | .02285 | 173.4 | .003537 | 230. | .0723 | .02319 | 175.1 | .003051 |
| 240. | .0594 | .02358 | 179.0 | .003903 | 240. | .0684 | .02390 | 180.6 | .003378 |
| 250. | .0565 | .02431 | 184.6 | .004277 | 250. | .0650 | .02461 | 186.0 | .003710 |
| 260. | .0539 | .02504 | 190.1 | .004658 | 260. | .0620 | .02533 | 191.4 | .004048 |
| 270. | .0516 | .02577 | 195.5 | .005047 | 270. | .0593 | .02605 | 196.7 | .004392 |
| 280. | .0495 | .02650 | 200.9 | .005443 | 280. | .0568 | .02677 | 202.0 | .004743 |
| 290. | .0476 | .02723 | 206.2 | .005846 | 290. | .0546 | .02749 | 207.3 | .005099 |
| 300. | .0458 | .02795 | 211.4 | .006257 | 300. | .0525 | .02820 | 212.5 | .005462 |
| 310. | .0442 | .02867 | 216.6 | .006675 | 310. | .0506 | .02891 | 217.6 | .005832 |
| 320. | .0427 | .02941 | 221.8 | .007105 | 320. | .0488 | .02965 | 222.7 | .006211 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 4.5 MPa Isobar | | | | | 5.0 MPa Isobar | | | | |
|----------------|------------------------------|---------------------------|-------------------------------|--|----------------|------------------------------|---------------------------|-------------------------------|--|
| Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s | Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s |
| * 54.875 | 1.3091 | .20464 | 4991.2 | .000942 | * 54.932 | 1.3094 | .20476 | 5006.5 | .000942 |
| 56. | 1.3042 | .20257 | 4864.2 | .000935 | 56. | 1.3048 | .20280 | 4885.1 | .000936 |
| 58. | 1.2956 | .19904 | 4637.7 | .000924 | 58. | 1.2961 | .19927 | 4657.3 | .000925 |
| 60. | 1.2869 | .19567 | 4413.5 | .000915 | 60. | 1.2875 | .19591 | 4432.0 | .000916 |
| 62. | 1.2782 | .19245 | 4194.4 | .000906 | 62. | 1.2788 | .19269 | 4211.9 | .000907 |
| 64. | 1.2695 | .18934 | 3982.4 | .000898 | 64. | 1.2701 | .18959 | 3998.9 | .000899 |
| 66. | 1.2607 | .18634 | 3778.8 | .000890 | 66. | 1.2614 | .18659 | 3794.5 | .000891 |
| 68. | 1.2519 | .18341 | 3584.4 | .000883 | 68. | 1.2526 | .18367 | 3599.3 | .000884 |
| 70. | 1.2431 | .18056 | 3399.7 | .000875 | 70. | 1.2438 | .18083 | 3413.9 | .000877 |
| 72. | 1.2342 | .17776 | 3224.6 | .000868 | 72. | 1.2349 | .17803 | 3238.2 | .000869 |
| 74. | 1.2253 | .17501 | 3059.2 | .000861 | 74. | 1.2260 | .17529 | 3072.2 | .000862 |
| 76. | 1.2163 | .17229 | 2903.3 | .000853 | 76. | 1.2171 | .17258 | 2915.7 | .000855 |
| 78. | 1.2072 | .16959 | 2756.4 | .000846 | 78. | 1.2081 | .16989 | 2768.3 | .000848 |
| 80. | 1.1981 | .16692 | 2618.3 | .000838 | 80. | 1.1990 | .16723 | 2629.7 | .000840 |
| 82. | 1.1890 | .16426 | 2488.3 | .000831 | 82. | 1.1898 | .16458 | 2499.4 | .000833 |
| 84. | 1.1797 | .16162 | 2366.3 | .000823 | 84. | 1.1806 | .16194 | 2376.9 | .000825 |
| 86. | 1.1704 | .15897 | 2251.5 | .000815 | 86. | 1.1713 | .15931 | 2261.8 | .000817 |
| 88. | 1.1610 | .15633 | 2143.6 | .000806 | 88. | 1.1620 | .15668 | 2153.6 | .000808 |
| 90. | 1.1515 | .15368 | 2042.2 | .000798 | 90. | 1.1525 | .15404 | 2051.9 | .000800 |
| 92. | 1.1419 | .15103 | 1946.7 | .000789 | 92. | 1.1430 | .15140 | 1956.1 | .000791 |
| 94. | 1.1322 | .14837 | 1856.8 | .000779 | 94. | 1.1333 | .14875 | 1866.0 | .000782 |
| 96. | 1.1224 | .14570 | 1772.1 | .000770 | 96. | 1.1235 | .14610 | 1781.1 | .000772 |
| 98. | 1.1124 | .14302 | 1692.2 | .000759 | 98. | 1.1137 | .14343 | 1701.0 | .000762 |
| 100. | 1.1024 | .14033 | 1616.8 | .000749 | 100. | 1.1037 | .14075 | 1625.4 | .000752 |
| 102. | 1.0922 | .13762 | 1545.5 | .000738 | 102. | 1.0936 | .13806 | 1554.0 | .000741 |
| 104. | 1.0818 | .13489 | 1478.0 | .000727 | 104. | 1.0833 | .13535 | 1486.4 | .000730 |
| 106. | 1.0713 | .13215 | 1414.1 | .000715 | 106. | 1.0729 | .13262 | 1422.3 | .000718 |
| 108. | 1.0606 | .12939 | 1353.4 | .000703 | 108. | 1.0622 | .12988 | 1361.6 | .000706 |
| 110. | 1.0498 | .12661 | 1295.7 | .000690 | 110. | 1.0515 | .12712 | 1303.8 | .000694 |
| 112. | 1.0387 | .12381 | 1240.8 | .000676 | 112. | 1.0405 | .12434 | 1248.9 | .000680 |
| 114. | 1.0273 | .12099 | 1188.4 | .000662 | 114. | 1.0292 | .12153 | 1196.5 | .000667 |
| 116. | 1.0157 | .11814 | 1138.4 | .000648 | 116. | 1.0178 | .11871 | 1146.5 | .000653 |
| 118. | 1.0038 | .11526 | 1090.5 | .000633 | 118. | 1.0060 | .11586 | 1098.7 | .000638 |
| 120. | .9916 | .11236 | 1044.6 | .000617 | 120. | .9940 | .11298 | 1052.8 | .000622 |
| 122. | .9791 | .10942 | 1000.5 | .000600 | 122. | .9816 | .11008 | 1008.8 | .000606 |
| 124. | .9661 | .10645 | 958.0 | .000583 | 124. | .9688 | .10714 | 966.4 | .000589 |
| 126. | .9527 | .10345 | 916.6 | .000565 | 126. | .9556 | .10418 | 925.4 | .000572 |
| 128. | .9388 | .10040 | 877.1 | .000546 | 128. | .9420 | .10117 | 885.8 | .000554 |
| 130. | .9243 | .09731 | 838.4 | .000527 | 130. | .9278 | .09813 | 847.4 | .000535 |
| 132. | .9091 | .09417 | 800.6 | .000506 | 132. | .9130 | .09505 | 810.0 | .000515 |
| 134. | .8932 | .09098 | 763.6 | .000484 | 134. | .8975 | .09191 | 773.4 | .000494 |
| 136. | .8763 | .08773 | 727.2 | .000461 | 136. | .8811 | .08873 | 737.5 | .000471 |
| 138. | .8583 | .08441 | 691.1 | .000436 | 138. | .8638 | .08550 | 702.1 | .000448 |
| 140. | .8390 | .08103 | 655.1 | .000409 | 140. | .8453 | .08221 | 666.9 | .000423 |
| 142. | .8180 | .07757 | 618.8 | .000380 | 142. | .8254 | .07887 | 631.7 | .000396 |
| 144. | .7946 | .07405 | 581.7 | .000348 | 144. | .8035 | .07549 | 596.0 | .000367 |
| 146. | .7681 | .07046 | 542.9 | .000311 | 146. | .7792 | .07208 | 559.4 | .000335 |
| 148. | .7365 | .06687 | 500.8 | .000267 | 148. | .7513 | .06871 | 520.8 | .000298 |
| 150. | .6952 | .06340 | 451.6 | .000208 | 150. | .7175 | .06551 | 478.6 | .000254 |
| * 151.646 | .6410 | .06085 | 395.0 | .000126 | 152. | .6724 | .06286 | 428.1 | .000194 |
| * 151.646 | .2443 | .03191 | 161.9 | .000149 | 154. | .5822 | .06213 | 344.1 | .000075 |
| 152. | .2350 | .03109 | 159.4 | .000189 | * 154.361 | .5151 | .07770 | 293.5 | .000017 |
| 154. | .2055 | .02923 | 152.7 | .000363 | * 154.361 | .3666 | .08153 | 210.1 | .000014 |
| 156. | .1889 | .02683 | 149.9 | .000473 | 156. | .2561 | .03526 | 169.4 | .000213 |
| 158. | .1771 | .02484 | 148.5 | .000552 | 158. | .2256 | .03004 | 161.7 | .000336 |
| 160. | .1679 | .02358 | 147.8 | .000624 | 160. | .2075 | .02732 | 158.2 | .000427 |
| 165. | .1510 | .02195 | 147.6 | .000789 | 165. | .1799 | .02411 | 154.7 | .000609 |
| 170. | .1389 | .02128 | 148.6 | .000944 | 170. | .1626 | .02278 | 154.2 | .000764 |
| 175. | .1295 | .02102 | 150.1 | .001093 | 175. | .1500 | .02218 | 154.8 | .000909 |
| 180. | .1219 | .02097 | 152.0 | .001240 | 180. | .1402 | .02192 | 156.1 | .001048 |
| 185. | .1155 | .02106 | 154.2 | .001384 | 185. | .1321 | .02186 | 157.8 | .001184 |
| 190. | .1100 | .02122 | 156.5 | .001527 | 190. | .1252 | .02192 | 159.7 | .001318 |
| 195. | .1051 | .02143 | 158.9 | .001670 | 195. | .1193 | .02206 | 161.9 | .001450 |
| 200. | .1008 | .02169 | 161.3 | .001812 | 200. | .1142 | .02225 | 164.1 | .001582 |
| 210. | .0935 | .02226 | 166.4 | .002097 | 210. | .1054 | .02274 | 168.8 | .001845 |
| 220. | .0873 | .02289 | 171.6 | .002385 | 220. | .0982 | .02331 | 173.8 | .002110 |
| 230. | .0821 | .02355 | 176.9 | .002675 | 230. | .0921 | .02394 | 178.8 | .002376 |
| 240. | .0776 | .02424 | 182.2 | .002970 | 240. | .0869 | .02459 | 184.0 | .002645 |
| 250. | .0737 | .02493 | 187.5 | .003270 | 250. | .0824 | .02526 | 189.1 | .002919 |
| 260. | .0701 | .02563 | 192.8 | .003574 | 260. | .0784 | .02594 | 194.3 | .003197 |
| 270. | .0670 | .02634 | 198.0 | .003884 | 270. | .0748 | .02663 | 199.4 | .003479 |
| 280. | .0641 | .02704 | 203.2 | .004190 | 280. | .0715 | .02732 | 204.5 | .003765 |
| 290. | .0616 | .02775 | 208.4 | .004519 | 290. | .0686 | .02802 | 209.6 | .004056 |
| 300. | .0592 | .02845 | 213.5 | .004845 | 300. | .0659 | .02871 | 214.7 | .004352 |
| 310. | .0570 | .02916 | 218.6 | .005177 | 310. | .0635 | .02941 | 219.7 | .004653 |
| 320. | .0550 | .02989 | 223.6 | .005517 | 320. | .0612 | .03013 | 224.6 | .004963 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 5.5 MPa Isobar | | | | | 6.0 MPa Isobar | | | | |
|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 54.989 | 1.3097 | .20488 | 5021.7 | .000943 | * 55.046 | 1.3100 | .20500 | 5037.0 | .000943 |
| 56. | 1.3054 | .20303 | 4906.1 | .000937 | 56. | 1.3059 | .20325 | 4927.1 | .000938 |
| 58. | 1.2967 | .19950 | 4677.0 | .000926 | 58. | 1.2973 | .19973 | 4696.7 | .000927 |
| 60. | 1.2881 | .19614 | 4450.5 | .000917 | 60. | 1.2887 | .19638 | 4469.1 | .000918 |
| 62. | 1.2794 | .19293 | 4229.4 | .000908 | 62. | 1.2800 | .19317 | 4246.9 | .000909 |
| 64. | 1.2707 | .18983 | 4015.5 | .000900 | 64. | 1.2714 | .19008 | 4032.1 | .000901 |
| 66. | 1.2620 | .18684 | 3810.2 | .000893 | 66. | 1.2627 | .18709 | 3825.9 | .000894 |
| 68. | 1.2533 | .18393 | 3614.3 | .000885 | 68. | 1.2540 | .18419 | 3629.2 | .000886 |
| 70. | 1.2445 | .18109 | 3428.1 | .000878 | 70. | 1.2452 | .18136 | 3442.3 | .000879 |
| 72. | 1.2357 | .17831 | 3251.7 | .000871 | 72. | 1.2364 | .17858 | 3265.3 | .000872 |
| 74. | 1.2268 | .17557 | 3085.1 | .000864 | 74. | 1.2275 | .17585 | 3098.1 | .000865 |
| 76. | 1.2179 | .17287 | 2928.1 | .000856 | 76. | 1.2186 | .17315 | 2940.5 | .000858 |
| 78. | 1.2089 | .17019 | 2780.2 | .000849 | 78. | 1.2097 | .17049 | 2792.1 | .000851 |
| 80. | 1.1998 | .16754 | 2641.2 | .000842 | 80. | 1.2007 | .16784 | 2652.6 | .000843 |
| 82. | 1.1907 | .16490 | 2510.4 | .000834 | 82. | 1.1916 | .16521 | 2521.4 | .000836 |
| 84. | 1.1815 | .16227 | 2387.5 | .000827 | 84. | 1.1824 | .16259 | 2398.2 | .000828 |
| 86. | 1.1723 | .15965 | 2272.1 | .000819 | 86. | 1.1732 | .15998 | 2282.4 | .000821 |
| 88. | 1.1629 | .15702 | 2163.6 | .000810 | 88. | 1.1639 | .15737 | 2173.5 | .000812 |
| 90. | 1.1535 | .15440 | 2061.5 | .000802 | 90. | 1.1546 | .15476 | 2071.2 | .000804 |
| 92. | 1.1440 | .15177 | 1965.5 | .000793 | 92. | 1.1451 | .15214 | 1974.9 | .000795 |
| 94. | 1.1344 | .14914 | 1875.2 | .000784 | 94. | 1.1356 | .14951 | 1884.3 | .000786 |
| 96. | 1.1247 | .14649 | 1790.1 | .000775 | 96. | 1.1259 | .14688 | 1799.0 | .000777 |
| 98. | 1.1149 | .14384 | 1709.8 | .000765 | 98. | 1.1161 | .14424 | 1718.5 | .000767 |
| 100. | 1.1050 | .14117 | 1634.0 | .000755 | 100. | 1.1063 | .14159 | 1642.6 | .000757 |
| 102. | 1.0949 | .13849 | 1562.4 | .000744 | 102. | 1.0963 | .13892 | 1570.8 | .000747 |
| 104. | 1.0847 | .13580 | 1494.7 | .000733 | 104. | 1.0861 | .13625 | 1503.0 | .000736 |
| 106. | 1.0744 | .13309 | 1430.5 | .000722 | 106. | 1.0758 | .13355 | 1438.7 | .000725 |
| 108. | 1.0638 | .13036 | 1369.7 | .000710 | 108. | 1.0654 | .13084 | 1377.8 | .000713 |
| 110. | 1.0531 | .12762 | 1311.9 | .000697 | 110. | 1.0548 | .12812 | 1319.9 | .000701 |
| 112. | 1.0422 | .12486 | 1256.9 | .000684 | 112. | 1.0440 | .12537 | 1264.9 | .000688 |
| 114. | 1.0311 | .12208 | 1204.5 | .000671 | 114. | 1.0330 | .12261 | 1212.4 | .000675 |
| 116. | 1.0198 | .11927 | 1154.5 | .000657 | 116. | 1.0217 | .11983 | 1162.4 | .000661 |
| 118. | 1.0081 | .11645 | 1106.7 | .000643 | 118. | 1.0102 | .11703 | 1114.6 | .000647 |
| 120. | .9962 | .11360 | 1060.9 | .000627 | 120. | .9985 | .11421 | 1068.9 | .000633 |
| 122. | .9840 | .11072 | 1016.9 | .000612 | 122. | .9864 | .11136 | 1025.0 | .000617 |
| 124. | .9714 | .10782 | 974.7 | .000595 | 124. | .9740 | .10849 | 982.8 | .000601 |
| 126. | .9585 | .10489 | 933.9 | .000578 | 126. | .9613 | .10559 | 942.2 | .000585 |
| 128. | .9451 | .10193 | 894.5 | .000561 | 128. | .9481 | .10266 | 903.0 | .000568 |
| 130. | .9312 | .09893 | 856.3 | .000542 | 130. | .9344 | .09971 | 865.0 | .000550 |
| 132. | .9167 | .09589 | 819.2 | .000523 | 132. | .9203 | .09672 | 828.1 | .000531 |
| 134. | .9016 | .09282 | 783.0 | .000503 | 134. | .9055 | .09370 | 792.2 | .000512 |
| 136. | .8857 | .08970 | 747.5 | .000482 | 136. | .8901 | .09064 | 757.2 | .000491 |
| 138. | .8690 | .08654 | 712.6 | .000459 | 138. | .8739 | .08755 | 722.8 | .000470 |
| 140. | .8512 | .08334 | 678.1 | .000436 | 140. | .8567 | .08442 | 688.9 | .000448 |
| 142. | .8322 | .08010 | 643.8 | .000411 | 142. | .8385 | .08127 | 655.3 | .000424 |
| 144. | .8116 | .07683 | 609.3 | .000384 | 144. | .8189 | .07810 | 621.8 | .000399 |
| 146. | .7890 | .07356 | 574.3 | .000355 | 146. | .7977 | .07493 | 588.1 | .000373 |
| 148. | .7637 | .07034 | 538.2 | .000323 | 148. | .7743 | .07184 | 553.7 | .000344 |
| 150. | .7344 | .06713 | 500.0 | .000287 | 150. | .7481 | .06891 | 518.2 | .000314 |
| 152. | .6937 | .06476 | 457.7 | .000244 | 152. | .7175 | .06642 | 480.4 | .000279 |
| 154. | .6499 | .06354 | 406.5 | .000187 | 154. | .6800 | .06494 | 438.4 | .000240 |
| 156. | .5532 | .06103 | 323.0 | .000081 | 156. | .6285 | .06221 | 387.7 | .000181 |
| 158. | .3267 | .04513 | 196.7 | .000117 | 158. | .5380 | .05811 | 313.7 | .000102 |
| 160. | .2681 | .03421 | 176.8 | .000239 | 160. | .3930 | .05000 | 228.0 | .000107 |
| 165. | .2156 | .02712 | 164.5 | .000451 | 165. | .2625 | .03152 | 179.2 | .000312 |
| 170. | .1898 | .02471 | 161.2 | .000613 | 170. | .2217 | .02721 | 170.3 | .000483 |
| 175. | .1727 | .02359 | 160.4 | .000756 | 175. | .1979 | .02532 | 167.2 | .000628 |
| 180. | .1599 | .02304 | 160.8 | .000891 | 180. | .1813 | .02435 | 166.4 | .000760 |
| 185. | .1497 | .02278 | 161.9 | .001021 | 185. | .1686 | .02385 | 166.6 | .000885 |
| 190. | .1413 | .02271 | 163.4 | .001147 | 190. | .1583 | .02361 | 167.5 | .001006 |
| 195. | .1342 | .02276 | 165.2 | .001272 | 195. | .1497 | .02353 | 168.9 | .001124 |
| 200. | .1280 | .02288 | 167.1 | .001395 | 200. | .1424 | .02356 | 170.5 | .001241 |
| 210. | .1177 | .02326 | 171.5 | .001641 | 210. | .1303 | .02383 | 174.3 | .001471 |
| 220. | .1093 | .02377 | 176.1 | .001886 | 220. | .1207 | .02425 | 178.6 | .001701 |
| 230. | .1023 | .02434 | 180.9 | .002132 | 230. | .1127 | .02477 | 183.1 | .001930 |
| 240. | .0964 | .02496 | 185.8 | .002381 | 240. | .1060 | .02535 | 187.8 | .002162 |
| 250. | .0912 | .02560 | 190.8 | .002633 | 250. | .1001 | .02596 | 192.6 | .002396 |
| 260. | .0867 | .02626 | 195.8 | .002889 | 260. | .0950 | .02660 | 197.5 | .002633 |
| 270. | .0826 | .02693 | 200.8 | .003148 | 270. | .0905 | .02725 | 202.4 | .002873 |
| 280. | .0790 | .02761 | 205.9 | .003411 | 280. | .0865 | .02791 | 207.3 | .003117 |
| 290. | .0757 | .02829 | 210.9 | .003678 | 290. | .0828 | .02857 | 212.2 | .003364 |
| 300. | .0727 | .02897 | 215.8 | .003949 | 300. | .0795 | .02924 | 217.1 | .003615 |
| 310. | .0700 | .02966 | 220.8 | .004226 | 310. | .0765 | .02992 | 221.9 | .003870 |
| 320. | .0675 | .03038 | 225.7 | .004510 | 320. | .0737 | .03063 | 226.8 | .004133 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 6.5 MPa Isobar | | | | | 7.0 MPa Isobar | | | | |
|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 55.103 | 1.3104 | .20512 | 5052.1 | .000944 | * 55.159 | 1.3107 | .20525 | 5067.3 | .000944 |
| 56. | 1.3065 | .20348 | 4948.2 | .000939 | 56. | 1.3071 | .20371 | 4969.3 | .000939 |
| 58. | 1.2979 | .19996 | 4716.5 | .000928 | 58. | 1.2985 | .20019 | 4736.3 | .000929 |
| 60. | 1.2893 | .19661 | 4487.7 | .000919 | 60. | 1.2899 | .19684 | 4506.3 | .000920 |
| 62. | 1.2806 | .19341 | 4264.4 | .000910 | 62. | 1.2812 | .19364 | 4282.0 | .000911 |
| 64. | 1.2720 | .19032 | 4048.6 | .000902 | 64. | 1.2726 | .19057 | 4065.2 | .000904 |
| 66. | 1.2633 | .18734 | 3841.6 | .000895 | 66. | 1.2640 | .18759 | 3857.4 | .000896 |
| 68. | 1.2546 | .18445 | 3644.1 | .000888 | 68. | 1.2553 | .18470 | 3659.1 | .000889 |
| 70. | 1.2459 | .18162 | 3456.5 | .000880 | 70. | 1.2466 | .18188 | 3470.7 | .000882 |
| 72. | 1.2371 | .17885 | 3278.8 | .000873 | 72. | 1.2378 | .17912 | 3292.4 | .000875 |
| 74. | 1.2283 | .17613 | 3111.1 | .000866 | 74. | 1.2290 | .17641 | 3124.0 | .000868 |
| 76. | 1.2194 | .17344 | 2952.9 | .000859 | 76. | 1.2202 | .17373 | 2965.3 | .000861 |
| 78. | 1.2105 | .17079 | 2804.0 | .000852 | 78. | 1.2113 | .17108 | 2815.9 | .000854 |
| 80. | 1.2015 | .16815 | 2664.0 | .000845 | 80. | 1.2023 | .16845 | 2675.4 | .000847 |
| 82. | 1.1925 | .16553 | 2532.4 | .000838 | 82. | 1.1933 | .16584 | 2543.4 | .000839 |
| 84. | 1.1833 | .16292 | 2408.8 | .000830 | 84. | 1.1842 | .16324 | 2419.4 | .000832 |
| 86. | 1.1742 | .16031 | 2292.6 | .000822 | 86. | 1.1751 | .16065 | 2302.9 | .000824 |
| 88. | 1.1649 | .15771 | 2183.4 | .000814 | 88. | 1.1659 | .15806 | 2193.4 | .000816 |
| 90. | 1.1556 | .15511 | 2080.8 | .000806 | 90. | 1.1566 | .15546 | 2090.4 | .000808 |
| 92. | 1.1462 | .15250 | 1984.3 | .000798 | 92. | 1.1472 | .15287 | 1993.6 | .000800 |
| 94. | 1.1367 | .14989 | 1893.4 | .000789 | 94. | 1.1378 | .15027 | 1902.5 | .000791 |
| 96. | 1.1271 | .14727 | 1807.9 | .000780 | 96. | 1.1282 | .14766 | 1816.7 | .000782 |
| 98. | 1.1174 | .14464 | 1727.2 | .000770 | 98. | 1.1186 | .14504 | 1735.9 | .000773 |
| 100. | 1.1075 | .14200 | 1651.1 | .000760 | 100. | 1.1088 | .14242 | 1659.6 | .000763 |
| 102. | 1.0976 | .13935 | 1579.2 | .000750 | 102. | 1.0989 | .13978 | 1587.5 | .000753 |
| 104. | 1.0875 | .13669 | 1511.2 | .000739 | 104. | 1.0889 | .13713 | 1519.4 | .000742 |
| 106. | 1.0773 | .13401 | 1446.8 | .000728 | 106. | 1.0788 | .13447 | 1454.9 | .000731 |
| 108. | 1.0670 | .13132 | 1385.8 | .000717 | 108. | 1.0685 | .13179 | 1393.8 | .000720 |
| 110. | 1.0564 | .12861 | 1327.9 | .000705 | 110. | 1.0580 | .12910 | 1335.8 | .000708 |
| 112. | 1.0457 | .12589 | 1272.8 | .000692 | 112. | 1.0474 | .12639 | 1280.6 | .000696 |
| 114. | 1.0348 | .12314 | 1220.3 | .000679 | 114. | 1.0366 | .12367 | 1228.1 | .000683 |
| 116. | 1.0237 | .12038 | 1170.3 | .000666 | 116. | 1.0256 | .12093 | 1178.1 | .000670 |
| 118. | 1.0123 | .11761 | 1122.5 | .000652 | 118. | 1.0143 | .11817 | 1130.3 | .000656 |
| 120. | 1.0007 | .11481 | 1076.8 | .000638 | 120. | 1.0028 | .11540 | 1084.6 | .000642 |
| 122. | .9888 | .11199 | 1033.0 | .000623 | 122. | .9911 | .11260 | 1040.9 | .000628 |
| 124. | .9765 | .10914 | 990.9 | .000607 | 124. | .9790 | .10979 | 998.8 | .000613 |
| 126. | .9640 | .10628 | 950.4 | .000591 | 126. | .9666 | .10695 | 958.4 | .000597 |
| 128. | .9510 | .10339 | 911.3 | .000574 | 128. | .9539 | .10410 | 919.5 | .000581 |
| 130. | .9376 | .10047 | 873.5 | .000557 | 130. | .9407 | .10122 | 881.9 | .000564 |
| 132. | .9237 | .9752 | 836.9 | .000539 | 132. | .9271 | .99831 | 845.4 | .000546 |
| 134. | .9093 | .9455 | 801.3 | .000520 | 134. | .9130 | .96538 | 810.1 | .000528 |
| 136. | .8943 | .9155 | 766.5 | .000501 | 136. | .8983 | .93243 | 775.7 | .000509 |
| 138. | .8785 | .8851 | 732.6 | .000480 | 138. | .8830 | .89945 | 742.1 | .000490 |
| 140. | .8619 | .8546 | 699.2 | .000459 | 140. | .8669 | .86645 | 709.2 | .000470 |
| 142. | .8444 | .8238 | 666.3 | .000437 | 142. | .8500 | .83344 | 676.8 | .000449 |
| 144. | .8257 | .7929 | 633.6 | .000414 | 144. | .8321 | .80043 | 644.7 | .000427 |
| 146. | .8056 | .7622 | 600.9 | .000389 | 146. | .8129 | .76744 | 612.9 | .000404 |
| 148. | .7838 | .7322 | 567.7 | .000363 | 148. | .7924 | .73452 | 581.1 | .000380 |
| 150. | .7597 | .7039 | 534.3 | .000336 | 150. | .7700 | .70176 | 548.9 | .000355 |
| 152. | .7326 | .6679 | 499.4 | .000307 | 152. | .7452 | .66932 | 516.1 | .000330 |
| 154. | .7009 | .6337 | 462.2 | .000277 | 154. | .7173 | .63758 | 481.9 | .000305 |
| 156. | .6619 | .6035 | 421.0 | .000234 | 156. | .6847 | .60489 | 445.6 | .000270 |
| 158. | .6095 | .5597 | 372.1 | .000178 | 158. | .6450 | .56153 | 405.8 | .000228 |
| 160. | .5297 | .5568 | 309.8 | .000126 | 160. | .5935 | .55809 | 360.1 | .000183 |
| 165. | .3295 | .03804 | 203.8 | .000205 | 165. | .4127 | .04563 | 242.8 | .000163 |
| 170. | .2601 | .03048 | 182.5 | .000374 | 170. | .3069 | .03470 | 199.5 | .000288 |
| 175. | .2265 | .02743 | 175.6 | .000519 | 175. | .2589 | .03002 | 186.1 | .000428 |
| 180. | .2047 | .02591 | 172.9 | .000650 | 180. | .2303 | .02773 | 180.6 | .000556 |
| 185. | .1887 | .02508 | 172.0 | .000771 | 185. | .2103 | .02648 | 178.2 | .000675 |
| 190. | .1762 | .02462 | 172.2 | .000888 | 190. | .1951 | .02576 | 177.4 | .000788 |
| 195. | .1659 | .02440 | 173.0 | .001001 | 195. | .1829 | .02536 | 177.5 | .000896 |
| 200. | .1573 | .02432 | 174.2 | .001112 | 200. | .1728 | .02515 | 178.2 | .001002 |
| 210. | .1433 | .02444 | 177.4 | .001330 | 210. | .1566 | .02510 | 180.7 | .001209 |
| 220. | .1323 | .02477 | 181.2 | .001545 | 220. | .1441 | .02532 | 184.1 | .001414 |
| 230. | .1233 | .02523 | 185.5 | .001761 | 230. | .1340 | .02570 | 187.9 | .001617 |
| 240. | .1157 | .02575 | 189.9 | .001978 | 240. | .1255 | .02618 | 192.1 | .001821 |
| 250. | .1092 | .02633 | 194.5 | .002197 | 250. | .1183 | .02672 | 196.5 | .002027 |
| 260. | .1035 | .02694 | 199.2 | .002418 | 260. | .1120 | .02729 | 201.1 | .002235 |
| 270. | .0985 | .02757 | 204.0 | .002642 | 270. | .1065 | .02789 | 205.7 | .002445 |
| 280. | .0940 | .02821 | 208.8 | .002869 | 280. | .1016 | .02851 | 210.3 | .002657 |
| 290. | .0900 | .02886 | 213.6 | .003099 | 290. | .0972 | .02915 | 215.0 | .002873 |
| 300. | .0863 | .02951 | 218.4 | .003332 | 300. | .0932 | .02979 | 219.7 | .003091 |
| 310. | .0830 | .03018 | 223.2 | .003570 | 310. | .0895 | .03044 | 224.4 | .003313 |
| 320. | .0800 | .03088 | 227.9 | .003815 | 320. | .0862 | .03114 | 229.1 | .003542 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 7.5 MPa Isobar | | | | | 8.0 MPa Isobar | | | | |
|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 55.216 | 1.3110 | .20537 | 5082.4 | .000945 | * 55.273 | 1.3113 | .20549 | 5097.4 | .000945 |
| 56. | 1.3076 | .20393 | 4990.4 | .000940 | 56. | 1.3082 | .20416 | 5011.6 | .000941 |
| 58. | 1.2990 | .20042 | 4756.1 | .000930 | 58. | 1.2996 | .20065 | 4776.0 | .000931 |
| 60. | 1.2904 | .16708 | 4524.9 | .000921 | 60. | 1.2910 | .19731 | 4543.6 | .000922 |
| 62. | 1.2819 | .19388 | 4299.5 | .000912 | 62. | 1.2825 | .19412 | 4317.1 | .000914 |
| 64. | 1.2733 | .19081 | 4081.9 | .000905 | 64. | 1.2739 | .19105 | 4098.5 | .000906 |
| 66. | 1.2646 | .18784 | 3873.1 | .000897 | 66. | 1.2653 | .18809 | 3888.9 | .000898 |
| 68. | 1.2560 | .18496 | 3674.0 | .000890 | 68. | 1.2566 | .18521 | 3589.0 | .000891 |
| 70. | 1.2473 | .18215 | 3484.9 | .000883 | 70. | 1.2480 | .18241 | 3499.2 | .000884 |
| 72. | 1.2385 | .17939 | 3306.0 | .000876 | 72. | 1.2393 | .17966 | 3319.5 | .000877 |
| 74. | 1.2298 | .17668 | 3137.0 | .000869 | 74. | 1.2305 | .17696 | 3149.9 | .000871 |
| 76. | 1.2210 | .17401 | 2977.7 | .000862 | 76. | 1.2217 | .17430 | 2990.1 | .000864 |
| 78. | 1.2121 | .17137 | 2827.8 | .000855 | 78. | 1.2129 | .17167 | 2839.7 | .000857 |
| 80. | 1.2032 | .16876 | 2686.9 | .000848 | 80. | 1.2040 | .16906 | 2698.3 | .000850 |
| 82. | 1.1942 | .16615 | 2554.4 | .000841 | 82. | 1.1950 | .16646 | 2565.4 | .000843 |
| 84. | 1.1851 | .16356 | 2430.0 | .000834 | 84. | 1.1860 | .16388 | 2440.6 | .000836 |
| 86. | 1.1760 | .16098 | 2313.1 | .000827 | 86. | 1.1770 | .16131 | 2323.3 | .000828 |
| 88. | 1.1669 | .15840 | 2203.3 | .000818 | 88. | 1.1678 | .15874 | 2213.2 | .000820 |
| 90. | 1.1576 | .15581 | 2100.0 | .000810 | 90. | 1.1586 | .15616 | 2109.6 | .000812 |
| 92. | 1.1483 | .15323 | 2003.0 | .000802 | 92. | 1.1493 | .15359 | 2012.3 | .000804 |
| 94. | 1.1389 | .15064 | 1911.6 | .000793 | 94. | 1.1399 | .15101 | 1920.7 | .000796 |
| 96. | 1.1294 | .14804 | 1825.6 | .000784 | 96. | 1.1305 | .14843 | 1834.4 | .000787 |
| 98. | 1.1198 | .14544 | 1744.5 | .000775 | 98. | 1.1209 | .14584 | 1752.2 | .000778 |
| 100. | 1.1100 | .14283 | 1668.1 | .000765 | 100. | 1.1113 | .14323 | 1676.5 | .000768 |
| 102. | 1.1002 | .14020 | 1595.8 | .000755 | 102. | 1.1015 | .14062 | 1604.1 | .000758 |
| 104. | 1.0903 | .13757 | 1527.6 | .000745 | 104. | 1.0916 | .13800 | 1535.7 | .000748 |
| 106. | 1.0802 | .13492 | 1463.0 | .000734 | 106. | 1.0816 | .13537 | 1471.0 | .000737 |
| 108. | 1.0700 | .13226 | 1401.7 | .000723 | 108. | 1.0715 | .13272 | 1409.6 | .000726 |
| 110. | 1.0596 | .12958 | 1343.6 | .000712 | 110. | 1.0612 | .13006 | 1351.4 | .000715 |
| 112. | 1.0491 | .12689 | 1288.4 | .000700 | 112. | 1.0508 | .12739 | 1296.2 | .000703 |
| 114. | 1.0384 | .12419 | 1235.9 | .000687 | 114. | 1.0401 | .12470 | 1243.6 | .000691 |
| 116. | 1.0275 | .12147 | 1185.8 | .000674 | 116. | 1.0293 | .12200 | 1193.5 | .000678 |
| 118. | 1.0163 | .11873 | 1138.1 | .000661 | 118. | 1.0183 | .11929 | 1145.7 | .000665 |
| 120. | 1.0050 | .11598 | 1092.4 | .000647 | 120. | 1.0070 | .11656 | 1100.1 | .000652 |
| 122. | .9933 | .11321 | 1048.7 | .000633 | 122. | .9955 | .11381 | 1056.4 | .000638 |
| 124. | .9914 | .11042 | 1006.7 | .000618 | 124. | .9838 | .11105 | 1014.5 | .000623 |
| 126. | .9692 | .10762 | 966.4 | .000603 | 126. | .9717 | .10827 | 974.2 | .000608 |
| 128. | .9566 | .10479 | 927.6 | .000587 | 128. | .9593 | .10547 | 935.5 | .000593 |
| 130. | .9437 | .10195 | 890.1 | .000570 | 130. | .9466 | .10266 | 898.2 | .000577 |
| 132. | .9303 | .09908 | 853.9 | .000553 | 132. | .9335 | .09983 | 862.1 | .000560 |
| 134. | .9165 | .09619 | 818.7 | .000536 | 134. | .9199 | .09698 | 827.2 | .000543 |
| 136. | .9022 | .09328 | 784.6 | .000518 | 136. | .9059 | .09412 | 793.3 | .000526 |
| 138. | .8872 | .09036 | 751.3 | .000499 | 138. | .8913 | .09124 | 760.3 | .000508 |
| 140. | .8716 | .08741 | 718.8 | .000480 | 140. | .8761 | .08835 | 728.1 | .000489 |
| 142. | .8552 | .08447 | 686.9 | .000460 | 142. | .8603 | .08545 | 696.6 | .000470 |
| 144. | .8380 | .08152 | 655.4 | .000439 | 144. | .8436 | .08257 | 665.7 | .000450 |
| 146. | .8197 | .07860 | 624.3 | .000417 | 146. | .8260 | .07971 | 635.2 | .000430 |
| 148. | .8002 | .07575 | 593.4 | .000395 | 148. | .8074 | .07692 | 605.0 | .000409 |
| 150. | .7791 | .07305 | 562.4 | .000373 | 150. | .7875 | .07427 | 574.9 | .000388 |
| 152. | .7562 | .07063 | 531.1 | .000350 | 152. | .7660 | .07187 | 544.8 | .000367 |
| 154. | .7309 | .06881 | 499.0 | .000328 | 154. | .7427 | .07000 | 514.3 | .000348 |
| 156. | .7024 | .06616 | 465.8 | .000299 | 156. | .7169 | .06738 | 483.3 | .000322 |
| 158. | .6693 | .06296 | 430.7 | .000264 | 158. | .6880 | .06431 | 451.2 | .000293 |
| 160. | .6296 | .05979 | 392.7 | .000228 | 160. | .6548 | .06129 | 417.5 | .000262 |
| 165. | .4891 | .05072 | 287.2 | .000170 | 165. | .5444 | .05358 | 325.7 | .000196 |
| 170. | .3618 | .03963 | 222.6 | .000236 | 170. | .4190 | .04428 | 250.8 | .000217 |
| 175. | .2958 | .03311 | 199.4 | .000356 | 175. | .3367 | .03660 | 215.9 | .000305 |
| 180. | .2584 | .02986 | 189.9 | .000478 | 180. | .2890 | .03229 | 200.9 | .000416 |
| 185. | .2335 | .02808 | 185.4 | .000593 | 185. | .2582 | .02988 | 193.6 | .000525 |
| 190. | .2151 | .02704 | 183.3 | .000702 | 190. | .2361 | .02845 | 190.0 | .000630 |
| 195. | .2006 | .02642 | 182.6 | .000807 | 195. | .2192 | .02758 | 188.2 | .000731 |
| 200. | .1888 | .02606 | 182.7 | .000909 | 200. | .2055 | .02704 | 187.5 | .000828 |
| 210. | .1703 | .02580 | 184.3 | .001107 | 210. | .1844 | .02656 | 188.2 | .001018 |
| 220. | .1562 | .02591 | 187.1 | .001301 | 220. | .1685 | .02653 | 190.4 | .001203 |
| 230. | .1449 | .02620 | 190.6 | .001494 | 230. | .1559 | .02673 | 193.4 | .001387 |
| 240. | .1355 | .02662 | 194.5 | .001687 | 240. | .1455 | .02708 | 197.0 | .001570 |
| 250. | .1275 | .02711 | 198.6 | .001881 | 250. | .1368 | .02753 | 200.9 | .001754 |
| 260. | .1206 | .02766 | 203.0 | .002077 | 260. | .1292 | .02803 | 205.0 | .001939 |
| 270. | .1145 | .02823 | 207.4 | .002274 | 270. | .1226 | .02858 | 209.2 | .002126 |
| 280. | .1092 | .02883 | 211.9 | .002475 | 280. | .1168 | .02915 | 213.6 | .002316 |
| 290. | .1044 | .02944 | 216.5 | .002677 | 290. | .1116 | .02974 | 218.1 | .002507 |
| 300. | .1000 | .03006 | 221.1 | .002882 | 300. | .1069 | .03035 | 222.6 | .002701 |
| 310. | .0961 | .03071 | 225.7 | .003091 | 310. | .1027 | .03098 | 227.1 | .002898 |
| 320. | .0925 | .03140 | 230.3 | .003307 | 320. | .0988 | .03166 | 231.6 | .003102 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 8.5 MPa Isobar | | | | | 9.0 MPa Isobar | | | | |
|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 55.330 | 1.3116 | .20561 | 5112.5 | .000946 | * 55.386 | 1.3119 | .20573 | 5127.5 | .000946 |
| 56. | 1.3087 | .20439 | 5032.9 | .000947 | 56. | 1.3093 | .20461 | 5054.1 | .000943 |
| 58. | 1.3002 | .20088 | 4795.8 | .000932 | 58. | 1.3008 | .20111 | 4815.8 | .000933 |
| 60. | 1.2916 | .19754 | 4562.3 | .000923 | 60. | 1.2922 | .19778 | 4581.0 | .000924 |
| 62. | 1.2831 | .19436 | 4334.7 | .000915 | 62. | 1.2837 | .19459 | 4352.4 | .000916 |
| 64. | 1.2745 | .19130 | 4115.1 | .000907 | 64. | 1.2751 | .19154 | 4131.8 | .000908 |
| 66. | 1.2659 | .18834 | 3904.6 | .000899 | 66. | 1.2665 | .18859 | 3920.4 | .000901 |
| 68. | 1.2573 | .18547 | 3703.9 | .000892 | 68. | 1.2579 | .18572 | 3718.9 | .000894 |
| 70. | 1.2486 | .18267 | 3513.4 | .000886 | 70. | 1.2493 | .18293 | 3527.6 | .000887 |
| 72. | 1.2400 | .17993 | 3333.1 | .000879 | 72. | 1.2407 | .18020 | 3346.7 | .000880 |
| 74. | 1.2312 | .17724 | 3162.9 | .000872 | 74. | 1.2320 | .17751 | 3175.8 | .000873 |
| 76. | 1.2225 | .17458 | 3002.5 | .000865 | 76. | 1.2232 | .17487 | 3014.9 | .000867 |
| 78. | 1.2137 | .17196 | 2851.6 | .000858 | 78. | 1.2144 | .17225 | 2863.5 | .000860 |
| 80. | 1.2048 | .16936 | 2709.7 | .000852 | 80. | 1.2056 | .16966 | 2721.1 | .000853 |
| 82. | 1.1959 | .16677 | 2576.4 | .000844 | 82. | 1.1967 | .16708 | 2587.3 | .000846 |
| 84. | 1.1869 | .16420 | 2451.1 | .000837 | 84. | 1.1978 | .16452 | 2461.7 | .000839 |
| 86. | 1.1779 | .16164 | 2333.5 | .000830 | 86. | 1.1788 | .16196 | 2343.7 | .000832 |
| 88. | 1.1688 | .15907 | 2223.0 | .000822 | 88. | 1.1697 | .15941 | 2232.9 | .000824 |
| 90. | 1.1596 | .15651 | 2119.2 | .000814 | 90. | 1.1606 | .15686 | 2128.7 | .000816 |
| 92. | 1.1504 | .15395 | 2021.6 | .000806 | 92. | 1.1514 | .15431 | 2030.8 | .000808 |
| 94. | 1.1410 | .15138 | 1929.7 | .000798 | 94. | 1.1421 | .15175 | 1938.7 | .000800 |
| 96. | 1.1316 | .14881 | 1843.2 | .000789 | 96. | 1.1327 | .14919 | 1852.0 | .000791 |
| 98. | 1.1221 | .14623 | 1761.8 | .000780 | 98. | 1.1233 | .14662 | 1770.3 | .000783 |
| 100. | 1.1125 | .14364 | 1684.9 | .000771 | 100. | 1.1137 | .14404 | 1693.3 | .000775 |
| 102. | 1.1029 | .14104 | 1612.4 | .000761 | 102. | 1.1041 | .14146 | 1620.6 | .000764 |
| 104. | 1.0930 | .13843 | 1543.8 | .000751 | 104. | 1.0943 | .13886 | 1551.9 | .000754 |
| 106. | 1.0830 | .13581 | 1478.9 | .000740 | 106. | 1.0844 | .13625 | 1486.9 | .000743 |
| 108. | 1.0730 | .13318 | 1417.5 | .000730 | 108. | 1.0744 | .13364 | 1425.3 | .000733 |
| 110. | 1.0628 | .13054 | 1359.2 | .000718 | 110. | 1.0643 | .13101 | 1367.0 | .000722 |
| 112. | 1.0524 | .12788 | 1303.9 | .000707 | 112. | 1.0540 | .12837 | 1311.5 | .000710 |
| 114. | 1.0419 | .12521 | 1251.3 | .000695 | 114. | 1.0436 | .12572 | 1258.9 | .000699 |
| 116. | 1.0311 | .12253 | 1201.1 | .000682 | 116. | 1.0329 | .12305 | 1208.7 | .000688 |
| 118. | 1.0202 | .11984 | 1153.3 | .000670 | 118. | 1.0221 | .12038 | 1160.9 | .000674 |
| 120. | 1.0091 | .11713 | 1107.7 | .000656 | 120. | 1.0111 | .11769 | 1115.2 | .000661 |
| 122. | .9977 | .11440 | 1064.0 | .000643 | 122. | .9999 | .11499 | 1071.6 | .000647 |
| 124. | .9861 | .11167 | 1022.1 | .000628 | 124. | .9884 | .11227 | 1029.7 | .000633 |
| 126. | .9742 | .10891 | 982.0 | .000614 | 126. | .9766 | .10955 | 989.6 | .000619 |
| 128. | .9620 | .10615 | 943.3 | .000599 | 128. | .9646 | .10681 | 951.1 | .000604 |
| 130. | .9495 | .10336 | 906.1 | .000583 | 130. | .9522 | .10405 | 914.0 | .000589 |
| 132. | .9366 | .10057 | 870.2 | .000567 | 132. | .9396 | .10129 | 878.2 | .000574 |
| 134. | .9233 | .09775 | 835.5 | .000551 | 134. | .9265 | .09851 | 843.6 | .000558 |
| 136. | .9095 | .09493 | 801.8 | .000534 | 136. | .9130 | .09572 | 810.1 | .000541 |
| 138. | .8953 | .09209 | 769.0 | .000516 | 138. | .8991 | .09292 | 777.6 | .000524 |
| 140. | .8805 | .08925 | 737.2 | .000498 | 140. | .8846 | .09012 | 746.0 | .000507 |
| 142. | .8650 | .08640 | 706.0 | .000480 | 142. | .8696 | .08733 | 715.2 | .000489 |
| 144. | .8489 | .08357 | 675.5 | .000461 | 144. | .8539 | .08454 | 685.1 | .000471 |
| 146. | .8319 | .08077 | 645.6 | .000442 | 146. | .8375 | .08179 | 655.6 | .000453 |
| 148. | .8141 | .07804 | 616.0 | .000422 | 148. | .8203 | .07911 | 626.5 | .000434 |
| 150. | .7951 | .07543 | 586.7 | .000402 | 150. | .8022 | .07654 | 597.9 | .000416 |
| 152. | .7749 | .07305 | 557.5 | .000383 | 152. | .7830 | .07418 | 569.5 | .000397 |
| 154. | .7531 | .07114 | 528.3 | .000365 | 154. | .7625 | .07224 | 541.2 | .000381 |
| 156. | .7294 | .06856 | 498.8 | .000342 | 156. | .7404 | .06970 | 513.0 | .000366 |
| 158. | .7034 | .06559 | 468.8 | .000316 | 158. | .7165 | .06662 | 484.5 | .000336 |
| 160. | .6743 | .06269 | 438.0 | .000289 | 160. | .6904 | .06401 | 455.6 | .000312 |
| 165. | .5931 | .05557 | 356.3 | .000227 | 165. | .6118 | .05723 | 381.0 | .000255 |
| 170. | .4707 | .04785 | 280.4 | .000218 | 170. | .5138 | .05045 | 308.5 | .000231 |
| 175. | .3797 | .04017 | 235.4 | .000276 | 175. | .4218 | .04342 | 256.8 | .000264 |
| 180. | .3219 | .03496 | 213.8 | .000368 | 180. | .3561 | .03773 | 228.6 | .000335 |
| 185. | .2846 | .03187 | 203.1 | .000469 | 185. | .3122 | .03402 | 213.8 | .000424 |
| 190. | .2583 | .03001 | 197.4 | .000568 | 190. | .2814 | .03170 | 205.7 | .000517 |
| 195. | .2384 | .02885 | 194.3 | .000665 | 195. | .2584 | .03022 | 201.1 | .000610 |
| 200. | .2227 | .02811 | 192.8 | .000759 | 200. | .2404 | .02926 | 198.6 | .000700 |
| 210. | .1988 | .02737 | 192.3 | .000941 | 210. | .2135 | .02823 | 196.8 | .000774 |
| 220. | .1810 | .02718 | 193.8 | .001118 | 220. | .1938 | .02787 | 197.5 | .001044 |
| 230. | .1671 | .02728 | 196.4 | .001293 | 230. | .1784 | .02786 | 199.5 | .001212 |
| 240. | .1557 | .02756 | 199.5 | .001468 | 240. | .1660 | .02806 | 202.3 | .001378 |
| 250. | .1461 | .02795 | 203.2 | .001643 | 250. | .1555 | .02840 | 205.6 | .001545 |
| 260. | .1379 | .02842 | 207.1 | .001819 | 260. | .1467 | .02882 | 209.2 | .001713 |
| 270. | .1308 | .02893 | 211.2 | .001997 | 270. | .1389 | .02929 | 213.1 | .001882 |
| 280. | .1245 | .02948 | 215.4 | .002176 | 280. | .1322 | .02981 | 217.2 | .002053 |
| 290. | .1189 | .03005 | 219.7 | .002357 | 290. | .1261 | .03036 | 221.4 | .002225 |
| 300. | .1138 | .03064 | 224.1 | .002541 | 300. | .1207 | .03093 | 225.6 | .002399 |
| 310. | .1092 | .03125 | 228.5 | .002727 | 310. | .1158 | .03153 | 229.9 | .002577 |
| 320. | .1051 | .03192 | 232.9 | .002921 | 320. | .1114 | .03219 | 234.3 | .002761 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 9.5 MPa Isobar | | | | | 10.0 MPa Isobar | | | | |
|----------------|---------|---------------|--------------|---------------------|-----------------|---------|---------------|--------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s | K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s |
| * 55.443 | 1.3122 | .20585 | 5142.4 | .000947 | * 55.500 | 1.3126 | .20597 | 5157.4 | .000947 |
| 56. | 1.3099 | .20464 | 5075.5 | .000944 | 56. | 1.3104 | .20506 | 5096.8 | .000945 |
| 58. | 1.3013 | .20133 | 4835.7 | .000934 | 58. | 1.3019 | .20156 | 4855.7 | .000935 |
| 60. | 1.2928 | .19501 | 4599.7 | .000925 | 60. | 1.2934 | .19824 | 4618.5 | .000926 |
| 62. | 1.2843 | .19483 | 4370.0 | .000917 | 62. | 1.2849 | .19507 | 4387.7 | .000918 |
| 64. | 1.2757 | .19178 | 4148.5 | .000909 | 64. | 1.2763 | .19202 | 4165.2 | .000910 |
| 66. | 1.2672 | .18883 | 3936.2 | .000902 | 66. | 1.2678 | .18908 | 3952.0 | .000903 |
| 68. | 1.2586 | .18597 | 3733.9 | .000895 | 68. | 1.2593 | .18623 | 3748.9 | .000896 |
| 70. | 1.2500 | .18319 | 3541.9 | .000888 | 70. | 1.2507 | .18345 | 3556.1 | .000889 |
| 72. | 1.2414 | .18046 | 3360.2 | .000881 | 72. | 1.2421 | .18073 | 3373.8 | .000883 |
| 74. | 1.2327 | .17779 | 3188.8 | .000875 | 74. | 1.2334 | .17806 | 3201.8 | .000876 |
| 76. | 1.2240 | .17515 | 3027.3 | .000868 | 76. | 1.2247 | .17543 | 3039.7 | .000870 |
| 78. | 1.2152 | .17254 | 2875.3 | .000861 | 78. | 1.2160 | .17283 | 2887.2 | .000863 |
| 80. | 1.2064 | .16996 | 2732.5 | .000855 | 80. | 1.2072 | .17025 | 2743.9 | .000856 |
| 82. | 1.1976 | .16739 | 2598.3 | .000848 | 82. | 1.1984 | .16770 | 2609.3 | .000849 |
| 84. | 1.1887 | .16483 | 2472.3 | .000841 | 84. | 1.1895 | .16515 | 2482.8 | .000842 |
| 86. | 1.1797 | .16229 | 2353.9 | .000834 | 86. | 1.1806 | .16261 | 2364.1 | .000835 |
| 88. | 1.1707 | .15975 | 2242.7 | .000826 | 88. | 1.1716 | .16008 | 2252.6 | .000828 |
| 90. | 1.1616 | .15720 | 2138.3 | .000818 | 90. | 1.1625 | .15755 | 2147.8 | .000820 |
| 92. | 1.1524 | .15466 | 2040.1 | .000810 | 92. | 1.1534 | .15501 | 2049.3 | .000813 |
| 94. | 1.1432 | .15212 | 1947.7 | .000802 | 94. | 1.1442 | .15248 | 1956.7 | .000804 |
| 96. | 1.1338 | .14956 | 1860.8 | .000794 | 96. | 1.1349 | .14994 | 1869.5 | .000796 |
| 98. | 1.1244 | .14701 | 1778.9 | .000785 | 98. | 1.1256 | .14739 | 1787.4 | .000787 |
| 100. | 1.1149 | .14444 | 1701.7 | .000776 | 100. | 1.1161 | .14484 | 1710.0 | .000778 |
| 102. | 1.1053 | .14187 | 1628.8 | .000766 | 102. | 1.1066 | .14228 | 1636.9 | .000769 |
| 104. | 1.0956 | .13929 | 1559.9 | .000757 | 104. | 1.0970 | .13971 | 1567.9 | .000759 |
| 106. | 1.0858 | .13669 | 1494.8 | .000746 | 106. | 1.0872 | .13713 | 1502.7 | .000749 |
| 108. | 1.0759 | .13409 | 1433.1 | .000736 | 108. | 1.0773 | .13454 | 1440.9 | .000739 |
| 110. | 1.0658 | .13148 | 1374.6 | .000725 | 110. | 1.0673 | .13194 | 1382.3 | .000728 |
| 112. | 1.0556 | .12885 | 1319.2 | .000714 | 112. | 1.0572 | .12933 | 1326.7 | .000717 |
| 114. | 1.0452 | .12622 | 1266.4 | .000702 | 114. | 1.0469 | .12671 | 1273.9 | .000706 |
| 116. | 1.0347 | .12357 | 1216.2 | .000690 | 116. | 1.0365 | .12408 | 1223.7 | .000694 |
| 118. | 1.0240 | .12091 | 1168.4 | .000678 | 118. | 1.0258 | .12144 | 1175.8 | .000682 |
| 120. | 1.0131 | .11825 | 1122.7 | .000665 | 120. | 1.0150 | .11879 | 1130.1 | .000669 |
| 122. | 1.0020 | .11557 | 1079.0 | .000652 | 122. | 1.0040 | .11614 | 1086.4 | .000656 |
| 124. | .9906 | .11287 | 1037.2 | .000638 | 124. | .9928 | .11347 | 1044.7 | .000643 |
| 126. | .9790 | .11017 | 997.2 | .000624 | 126. | .9813 | .11079 | 1004.6 | .000629 |
| 128. | .9671 | .10746 | 958.7 | .000610 | 128. | .9696 | .10810 | 966.2 | .000615 |
| 130. | .9550 | .10473 | 921.7 | .000595 | 130. | .9576 | .10540 | 929.3 | .000601 |
| 132. | .9425 | .10199 | 886.0 | .000580 | 132. | .9453 | .10269 | 893.7 | .000586 |
| 134. | .9296 | .09925 | 851.6 | .000564 | 134. | .9327 | .09997 | 859.4 | .000571 |
| 136. | .9164 | .09650 | 818.2 | .000548 | 136. | .9197 | .09725 | 826.2 | .000555 |
| 138. | .9027 | .09374 | 785.9 | .000532 | 138. | .9063 | .09453 | 794.1 | .000539 |
| 140. | .8886 | .09098 | 754.6 | .000515 | 140. | .8924 | .09181 | 763.0 | .000523 |
| 142. | .8739 | .08822 | 724.1 | .000498 | 142. | .8781 | .08909 | 732.7 | .000507 |
| 144. | .8587 | .08548 | 694.3 | .000481 | 144. | .8633 | .08640 | 703.2 | .000490 |
| 146. | .8428 | .08278 | 665.2 | .000463 | 146. | .8479 | .08373 | 674.5 | .000473 |
| 148. | .8262 | .08014 | 636.6 | .000445 | 148. | .8318 | .08113 | 646.3 | .000456 |
| 150. | .8089 | .07760 | 608.5 | .000428 | 150. | .8150 | .07863 | 618.7 | .000439 |
| 152. | .7905 | .07527 | 580.8 | .000411 | 152. | .7974 | .07631 | 591.5 | .000423 |
| 154. | .7710 | .07310 | 553.3 | .000395 | 154. | .7789 | .07433 | 564.7 | .000408 |
| 156. | .7503 | .07109 | 526.0 | .000376 | 156. | .7592 | .07185 | 538.2 | .000390 |
| 158. | .7281 | .06919 | 498.7 | .000354 | 158. | .7384 | .06912 | 511.8 | .000370 |
| 160. | .7041 | .06726 | 471.3 | .000332 | 160. | .7161 | .06645 | 485.6 | .000350 |
| 165. | .6342 | .05871 | 401.9 | .000280 | 165. | .6527 | .06009 | 420.0 | .000302 |
| 170. | .5486 | .05246 | 333.6 | .000248 | 170. | .5766 | .05414 | 355.6 | .000267 |
| 175. | .4606 | .04615 | 278.8 | .000263 | 175. | .4948 | .04837 | 300.3 | .000269 |
| 180. | .3904 | .04044 | 244.9 | .000316 | 180. | .4234 | .04291 | 262.0 | .000306 |
| 185. | .3406 | .03626 | 225.7 | .000391 | 185. | .3693 | .03849 | 238.7 | .000368 |
| 190. | .3053 | .03349 | 214.9 | .000476 | 190. | .3297 | .03535 | 224.9 | .000443 |
| 195. | .2791 | .03168 | 208.6 | .000563 | 195. | .3002 | .03322 | 216.6 | .000524 |
| 200. | .2587 | .03048 | 204.8 | .000648 | 200. | .2773 | .03176 | 211.5 | .000605 |
| 210. | .2285 | .02914 | 201.5 | .000816 | 210. | .2437 | .03010 | 206.6 | .000765 |
| 220. | .2067 | .02859 | 201.3 | .000979 | 220. | .2198 | .02935 | 205.4 | .000922 |
| 230. | .1899 | .02846 | 202.7 | .001140 | 230. | .2014 | .02909 | 206.2 | .001076 |
| 240. | .1763 | .02858 | 205.1 | .001299 | 240. | .1868 | .02912 | 208.1 | .001229 |
| 250. | .1650 | .02885 | 208.1 | .001459 | 250. | .1746 | .02932 | 210.7 | .001382 |
| 260. | .1555 | .02923 | 211.5 | .001619 | 260. | .1643 | .02964 | 213.8 | .001535 |
| 270. | .1472 | .02967 | 215.2 | .001781 | 270. | .1554 | .03005 | 217.3 | .001690 |
| 280. | .1399 | .03016 | 219.1 | .001943 | 280. | .1476 | .03050 | 221.0 | .001845 |
| 290. | .1334 | .03068 | 223.1 | .002108 | 290. | .1407 | .03100 | 224.9 | .002002 |
| 300. | .1276 | .03122 | 227.2 | .002273 | 300. | .1345 | .03152 | 228.9 | .002161 |
| 310. | .1224 | .03181 | 231.4 | .002443 | 310. | .1290 | .03209 | 233.0 | .002322 |
| 320. | .1177 | .03246 | 235.7 | .002618 | 320. | .1239 | .03273 | 237.1 | .002490 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 11.0 MPa Isobar | | | | | 12.0 MPa Isobar | | | | |
|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 55.513 | 1.3132 | .20621 | 5187.1 | .000948 | * 55.726 | 1.3138 | .20645 | 5216.7 | .000949 |
| 56. | 1.3115 | .20551 | 5139.7 | .000946 | 56. | 1.3126 | .20596 | 5182.7 | .000948 |
| 58. | 1.3030 | .20201 | 4895.8 | .000936 | 58. | 1.3041 | .20247 | 4936.0 | .000938 |
| 60. | 1.2945 | .19870 | 4656.1 | .000927 | 60. | 1.2957 | .19916 | 4693.8 | .000929 |
| 62. | 1.2861 | .19553 | 4423.1 | .000919 | 62. | 1.2872 | .19600 | 4458.6 | .000921 |
| 64. | 1.2776 | .19250 | 4198.6 | .000912 | 64. | 1.2788 | .19298 | 4232.1 | .000914 |
| 66. | 1.2691 | .18957 | 3983.6 | .000905 | 66. | 1.2703 | .19006 | 4015.3 | .000907 |
| 68. | 1.2606 | .18673 | 3778.9 | .000898 | 68. | 1.2619 | .18723 | 3808.9 | .000901 |
| 70. | 1.2520 | .18396 | 3584.7 | .000892 | 70. | 1.2534 | .18448 | 3613.2 | .000894 |
| 72. | 1.2435 | .18126 | 3401.0 | .000885 | 72. | 1.2448 | .18179 | 3428.1 | .000888 |
| 74. | 1.2349 | .17861 | 3227.7 | .000879 | 74. | 1.2363 | .17915 | 3253.6 | .000881 |
| 76. | 1.2262 | .17599 | 3064.4 | .000872 | 76. | 1.2277 | .17655 | 3089.2 | .000875 |
| 78. | 1.2176 | .17341 | 2910.9 | .000866 | 78. | 1.2191 | .17398 | 2934.6 | .000869 |
| 80. | 1.2088 | .17085 | 2766.6 | .000859 | 80. | 1.2104 | .17143 | 2789.4 | .000862 |
| 82. | 1.2001 | .16830 | 2631.1 | .000853 | 82. | 1.2017 | .16891 | 2653.0 | .000856 |
| 84. | 1.1913 | .16578 | 2503.9 | .000846 | 84. | 1.1930 | .16640 | 2524.9 | .000849 |
| 86. | 1.1824 | .16326 | 2384.4 | .000839 | 86. | 1.1842 | .16390 | 2404.7 | .000842 |
| 88. | 1.1735 | .16074 | 2272.2 | .000832 | 88. | 1.1753 | .16140 | 2291.8 | .000835 |
| 90. | 1.1645 | .15823 | 2166.8 | .000824 | 90. | 1.1664 | .15891 | 2185.8 | .000828 |
| 92. | 1.1554 | .15572 | 2067.7 | .000817 | 92. | 1.1574 | .15641 | 2086.1 | .000821 |
| 94. | 1.1463 | .15320 | 1974.6 | .000809 | 94. | 1.1484 | .15392 | 1992.4 | .000813 |
| 96. | 1.1371 | .15068 | 1886.9 | .000801 | 96. | 1.1393 | .15142 | 1904.3 | .000805 |
| 98. | 1.1279 | .14816 | 1804.4 | .000792 | 98. | 1.1301 | .14892 | 1821.3 | .000797 |
| 100. | 1.1185 | .14563 | 1726.6 | .000783 | 100. | 1.1208 | .14641 | 1743.1 | .000788 |
| 102. | 1.1091 | .14309 | 1653.2 | .000774 | 102. | 1.1115 | .14389 | 1669.3 | .000779 |
| 104. | 1.0995 | .14054 | 1583.8 | .000765 | 104. | 1.1021 | .14137 | 1599.6 | .000770 |
| 106. | 1.0899 | .13799 | 1518.3 | .000755 | 106. | 1.0925 | .13884 | 1533.8 | .000761 |
| 108. | 1.0801 | .13543 | 1456.3 | .000745 | 108. | 1.0829 | .13630 | 1471.5 | .000751 |
| 110. | 1.0703 | .13288 | 1397.5 | .000735 | 110. | 1.0732 | .13376 | 1412.5 | .000741 |
| 112. | 1.0603 | .13028 | 1341.7 | .000724 | 112. | 1.0633 | .13121 | 1356.6 | .000731 |
| 114. | 1.0502 | .12769 | 1288.8 | .000713 | 114. | 1.0533 | .12865 | 1303.5 | .000720 |
| 116. | 1.0399 | .12509 | 1238.4 | .000702 | 116. | 1.0432 | .12608 | 1253.0 | .000709 |
| 118. | 1.0294 | .12249 | 1190.5 | .000690 | 118. | 1.0330 | .12351 | 1204.9 | .000697 |
| 120. | 1.0188 | .11988 | 1144.7 | .000678 | 120. | 1.0225 | .12093 | 1159.1 | .000686 |
| 122. | 1.0080 | .11725 | 1101.1 | .000665 | 122. | 1.0120 | .11835 | 1115.4 | .000674 |
| 124. | .9971 | .11463 | 1059.3 | .000652 | 124. | 1.0012 | .11576 | 1073.7 | .000661 |
| 126. | .9859 | .11199 | 1019.3 | .000639 | 126. | .9902 | .11316 | 1033.7 | .000649 |
| 128. | .9744 | .10935 | 981.0 | .000626 | 128. | .9790 | .11056 | 995.5 | .000636 |
| 130. | .9627 | .10670 | 944.2 | .000612 | 130. | .9677 | .10796 | 958.7 | .000623 |
| 132. | .9508 | .10404 | 908.8 | .000598 | 132. | .9560 | .10535 | 923.5 | .000609 |
| 134. | .9385 | .10138 | 874.7 | .000583 | 134. | .9441 | .10274 | 889.5 | .000595 |
| 136. | .9260 | .09872 | 841.8 | .000569 | 136. | .9319 | .10014 | 856.8 | .000581 |
| 138. | .9131 | .09607 | 810.0 | .000554 | 138. | .9195 | .09754 | 825.3 | .000567 |
| 140. | .8998 | .09341 | 779.2 | .000538 | 140. | .9066 | .09494 | 794.8 | .000552 |
| 142. | .8861 | .09077 | 749.4 | .000523 | 142. | .8935 | .09236 | 765.3 | .000538 |
| 144. | .8719 | .08814 | 720.4 | .000507 | 144. | .8800 | .08980 | 736.7 | .000523 |
| 146. | .8573 | .08555 | 692.2 | .000491 | 146. | .8660 | .08728 | 709.0 | .000508 |
| 148. | .8422 | .08302 | 664.7 | .000476 | 148. | .8516 | .08480 | 682.0 | .000494 |
| 150. | .8264 | .08058 | 637.8 | .000460 | 150. | .8367 | .08242 | 655.7 | .000479 |
| 152. | .8101 | .07830 | 611.6 | .000445 | 152. | .8214 | .08016 | 630.1 | .000465 |
| 154. | .7930 | .07629 | 585.8 | .000432 | 154. | .8054 | .07815 | 605.1 | .000453 |
| 156. | .7751 | .07448 | 560.5 | .000416 | 156. | .7888 | .07579 | 580.7 | .000438 |
| 158. | .7563 | .07286 | 535.5 | .000398 | 158. | .7716 | .07326 | 556.7 | .000422 |
| 160. | .7365 | .07131 | 510.9 | .000381 | 160. | .7536 | .07081 | 533.3 | .000407 |
| 165. | .6820 | .06263 | 450.6 | .000339 | 165. | .7050 | .06494 | 476.4 | .000369 |
| 170. | .6192 | .05701 | 392.3 | .000305 | 170. | .6507 | .05953 | 422.2 | .000337 |
| 175. | .5500 | .05184 | 339.1 | .000291 | 175. | .5912 | .05462 | 372.0 | .000316 |
| 180. | .4822 | .04700 | 296.6 | .000306 | 180. | .5301 | .05016 | 328.8 | .000319 |
| 185. | .4244 | .04263 | 266.7 | .000345 | 185. | .4734 | .04609 | 295.2 | .000342 |
| 190. | .3786 | .03908 | 247.2 | .000401 | 190. | .4250 | .04251 | 271.1 | .000382 |
| 195. | .3431 | .03641 | 234.6 | .000467 | 195. | .3855 | .03957 | 254.4 | .000433 |
| 200. | .3154 | .03449 | 226.5 | .000537 | 200. | .3536 | .03729 | 243.1 | .000492 |
| 210. | .2749 | .03214 | 217.7 | .000682 | 210. | .3065 | .03430 | 229.9 | .000620 |
| 220. | .2464 | .03096 | 214.2 | .000827 | 220. | .2734 | .03267 | 223.9 | .000752 |
| 230. | .2249 | .03041 | 213.5 | .000969 | 230. | .2486 | .03182 | 221.5 | .000884 |
| 240. | .2078 | .03024 | 214.4 | .001111 | 240. | .2291 | .03143 | 221.2 | .001015 |
| 250. | .1938 | .03030 | 216.3 | .001252 | 250. | .2132 | .03133 | 222.2 | .001146 |
| 260. | .1820 | .03052 | 218.8 | .001393 | 260. | .1999 | .03143 | 224.0 | .001277 |
| 270. | .1719 | .03083 | 221.8 | .001535 | 270. | .1885 | .03165 | 226.5 | .001409 |
| 280. | .1631 | .03122 | 225.1 | .001678 | 280. | .1786 | .03196 | 229.4 | .001541 |
| 290. | .1553 | .03166 | 228.6 | .001822 | 290. | .1700 | .03234 | 232.5 | .001674 |
| 300. | .1484 | .03214 | 232.3 | .001968 | 300. | .1623 | .03276 | 235.9 | .001809 |
| 310. | .1422 | .03266 | 236.2 | .002116 | 310. | .1553 | .03325 | 239.5 | .001946 |
| 320. | .1365 | .03329 | 240.1 | .002271 | 320. | .1491 | .03385 | 243.2 | .002090 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 13.0 MPa Isobar | | | | | 14.0 MPa Isobar | | | | |
|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 55.838 | 1.3144 | .20669 | 5246.1 | .000950 | * 55.951 | 1.3150 | .20694 | 5275.4 | .000951 |
| 56. | 1.3137 | .20640 | 5225.8 | .000949 | 56. | 1.3148 | .20685 | 5269.1 | .000951 |
| 58. | 1.3053 | .20292 | 4976.3 | .000940 | 58. | 1.3064 | .20337 | 5015.7 | .000941 |
| 60. | 1.2968 | .19961 | 4731.6 | .000931 | 60. | 1.2980 | .20007 | 4769.5 | .000933 |
| 62. | 1.2884 | .19647 | 4494.2 | .000923 | 62. | 1.2896 | .19693 | 4529.8 | .000925 |
| 64. | 1.2800 | .19345 | 4265.6 | .000916 | 64. | 1.2812 | .19392 | 4299.3 | .000918 |
| 66. | 1.2716 | .19054 | 4047.0 | .000909 | 66. | 1.2728 | .19103 | 4079.8 | .000911 |
| 68. | 1.2631 | .18773 | 3839.0 | .000903 | 68. | 1.2644 | .18822 | 3859.1 | .000905 |
| 70. | 1.2547 | .18499 | 3641.8 | .000896 | 70. | 1.2560 | .18550 | 3670.3 | .000899 |
| 72. | 1.2462 | .18231 | 3455.3 | .000890 | 72. | 1.2476 | .18283 | 3482.5 | .000893 |
| 74. | 1.2377 | .17968 | 3279.5 | .000884 | 74. | 1.2391 | .18022 | 3305.4 | .000887 |
| 76. | 1.2292 | .17710 | 3114.0 | .000878 | 76. | 1.2306 | .17765 | 3138.7 | .000881 |
| 78. | 1.2206 | .17455 | 2958.3 | .000872 | 78. | 1.2221 | .17511 | 2982.0 | .000875 |
| 80. | 1.2120 | .17202 | 2812.1 | .000865 | 80. | 1.2135 | .17260 | 2834.8 | .000868 |
| 82. | 1.2033 | .16951 | 2674.8 | .000859 | 82. | 1.2049 | .17011 | 2696.6 | .000862 |
| 84. | 1.1946 | .16702 | 2545.9 | .000853 | 84. | 1.1963 | .16763 | 2566.9 | .000856 |
| 86. | 1.1859 | .16453 | 2424.9 | .000846 | 86. | 1.1876 | .16516 | 2445.1 | .000849 |
| 88. | 1.1771 | .16205 | 2311.3 | .000839 | 88. | 1.1789 | .16270 | 2330.8 | .000842 |
| 90. | 1.1683 | .15958 | 2204.6 | .000832 | 90. | 1.1701 | .16024 | 2223.5 | .000836 |
| 92. | 1.1594 | .15710 | 2104.4 | .000825 | 92. | 1.1613 | .15776 | 2122.7 | .000828 |
| 94. | 1.1504 | .15463 | 2010.2 | .000817 | 94. | 1.1524 | .15533 | 2027.9 | .000821 |
| 96. | 1.1414 | .15215 | 1921.6 | .000809 | 96. | 1.1435 | .15287 | 1938.7 | .000813 |
| 98. | 1.1323 | .14967 | 1838.1 | .000801 | 98. | 1.1345 | .15041 | 1854.8 | .000806 |
| 100. | 1.1231 | .14718 | 1759.5 | .000793 | 100. | 1.1254 | .14794 | 1775.8 | .000798 |
| 102. | 1.1139 | .14469 | 1685.3 | .000784 | 102. | 1.1162 | .14547 | 1701.3 | .000789 |
| 104. | 1.1046 | .14219 | 1615.4 | .000775 | 104. | 1.1070 | .14299 | 1631.0 | .000780 |
| 106. | 1.0951 | .13968 | 1549.2 | .000766 | 106. | 1.0977 | .14051 | 1564.5 | .000772 |
| 108. | 1.0856 | .13717 | 1486.7 | .000757 | 108. | 1.0883 | .13802 | 1501.7 | .000762 |
| 110. | 1.0760 | .13465 | 1427.4 | .000747 | 110. | 1.0788 | .13553 | 1442.2 | .000753 |
| 112. | 1.0663 | .13213 | 1371.3 | .000737 | 112. | 1.0692 | .13303 | 1385.8 | .000743 |
| 114. | 1.0564 | .12959 | 1318.0 | .000726 | 114. | 1.0595 | .13052 | 1332.4 | .000733 |
| 116. | 1.0465 | .12706 | 1267.4 | .000716 | 116. | 1.0497 | .12802 | 1281.6 | .000723 |
| 118. | 1.0364 | .12452 | 1219.2 | .000705 | 118. | 1.0397 | .12550 | 1233.3 | .000712 |
| 120. | 1.0261 | .12197 | 1173.3 | .000693 | 120. | 1.0296 | .12299 | 1187.3 | .000701 |
| 122. | 1.0157 | .11942 | 1129.6 | .000682 | 122. | 1.0194 | .12047 | 1143.5 | .000690 |
| 124. | 1.0052 | .11686 | 1087.8 | .000670 | 124. | 1.0090 | .11794 | 1101.7 | .000679 |
| 126. | .9944 | .11430 | 1047.8 | .000658 | 126. | .9985 | .11542 | 1061.7 | .000666 |
| 128. | .9835 | .11174 | 1009.6 | .000645 | 128. | .9878 | .11290 | 1023.5 | .000654 |
| 130. | .9724 | .10918 | 972.9 | .000633 | 130. | .9769 | .11037 | 986.8 | .000642 |
| 132. | .9610 | .10662 | 937.8 | .000620 | 132. | .9658 | .10785 | 951.7 | .000630 |
| 134. | .9494 | .10406 | 903.9 | .000606 | 134. | .9545 | .10534 | 918.0 | .000617 |
| 136. | .9376 | .10150 | 871.4 | .000593 | 136. | .9430 | .10282 | 885.6 | .000604 |
| 138. | .9255 | .09895 | 840.1 | .000579 | 138. | .9313 | .10032 | 854.4 | .000591 |
| 140. | .9131 | .09641 | 809.8 | .000566 | 140. | .9193 | .09783 | 824.3 | .000578 |
| 142. | .9004 | .09389 | 780.6 | .000552 | 142. | .9070 | .09535 | 795.3 | .000565 |
| 144. | .8874 | .09139 | 752.3 | .000538 | 144. | .8944 | .09290 | 767.3 | .000552 |
| 146. | .8741 | .08892 | 724.9 | .000524 | 146. | .8816 | .09048 | 740.2 | .000538 |
| 148. | .8603 | .08650 | 698.4 | .000510 | 148. | .8684 | .08811 | 713.9 | .000525 |
| 150. | .8462 | .08415 | 672.6 | .000497 | 150. | .8549 | .08581 | 688.5 | .000513 |
| 152. | .8316 | .08193 | 647.5 | .000484 | 152. | .8410 | .08362 | 663.9 | .000500 |
| 154. | .8166 | .07992 | 623.1 | .000472 | 154. | .8267 | .08160 | 639.9 | .000489 |
| 156. | .8010 | .07761 | 599.3 | .000458 | 156. | .8121 | .07934 | 616.6 | .000476 |
| 158. | .7850 | .07516 | 576.1 | .000443 | 158. | .7970 | .07696 | 594.0 | .000463 |
| 160. | .7684 | .07278 | 553.4 | .000429 | 160. | .7814 | .07464 | 571.9 | .000449 |
| 165. | .7241 | .06709 | 499.0 | .000395 | 165. | .7404 | .06911 | 519.3 | .000418 |
| 170. | .6756 | .06184 | 447.7 | .000366 | 170. | .6962 | .06398 | 470.1 | .000390 |
| 175. | .6231 | .05707 | 400.1 | .000345 | 175. | .6490 | .05930 | 424.5 | .000369 |
| 180. | .5685 | .05279 | 357.7 | .000338 | 180. | .5996 | .05512 | 383.3 | .000359 |
| 185. | .5152 | .04894 | 322.5 | .000350 | 185. | .5503 | .05139 | 347.7 | .000362 |
| 190. | .4669 | .04549 | 295.3 | .000377 | 190. | .5037 | .04807 | 318.8 | .000380 |
| 195. | .4254 | .04250 | 275.3 | .000416 | 195. | .4620 | .04512 | 296.2 | .000410 |
| 200. | .3908 | .04003 | 260.9 | .000444 | 200. | .4258 | .04258 | 279.3 | .000448 |
| 210. | .3380 | .03653 | 243.2 | .000575 | 210. | .3688 | .03874 | 257.3 | .000543 |
| 220. | .3004 | .03446 | 234.3 | .000695 | 220. | .3273 | .03630 | 245.5 | .000650 |
| 230. | .2724 | .03330 | 230.1 | .000816 | 230. | .2961 | .03482 | 239.2 | .000762 |
| 240. | .2504 | .03268 | 228.5 | .000938 | 240. | .2717 | .03397 | 236.2 | .000875 |
| 250. | .2326 | .03241 | 228.5 | .001060 | 250. | .2519 | .03353 | 235.2 | .000989 |
| 260. | .2177 | .03238 | 229.6 | .001182 | 260. | .2356 | .03336 | 235.5 | .001103 |
| 270. | .2051 | .03250 | 231.5 | .001305 | 270. | .2216 | .03337 | 236.7 | .001217 |
| 280. | .1942 | .03273 | 233.9 | .001428 | 280. | .2096 | .03352 | 238.6 | .001332 |
| 290. | .1846 | .03304 | 236.7 | .001552 | 290. | .1991 | .03376 | 241.0 | .001448 |
| 300. | .1761 | .03341 | 239.8 | .001676 | 300. | .1899 | .03407 | 243.7 | .001565 |
| 310. | .1685 | .03385 | 243.0 | .001804 | 310. | .1816 | .03446 | 246.7 | .001684 |
| 320. | .1616 | .03442 | 246.5 | .001938 | 320. | .1741 | .03501 | 249.9 | .001809 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 15.0 MPa Isobar | | | | | 16.0 MPa Isobar | | | | |
|-----------------|------------------------------|---------------------------|-------------------------------|--|-----------------|------------------------------|---------------------------|-------------------------------|--|
| Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s | Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s |
| * 56.063 | 1.3157 | .20718 | 5304.5 | .000952 | * 56.176 | 1.3163 | .20742 | 5333.4 | .000953 |
| 58. | 1.3075 | .20381 | 5057.3 | .000943 | 58. | 1.3086 | .20426 | 5098.0 | .000944 |
| 60. | 1.2991 | .20052 | 4807.5 | .000935 | 60. | 1.3002 | .20098 | 4845.7 | .000936 |
| 62. | 1.2907 | .19739 | 4565.6 | .000927 | 62. | 1.2919 | .19785 | 4601.4 | .000929 |
| 64. | 1.2824 | .19440 | 4332.9 | .000920 | 64. | 1.2836 | .19486 | 4366.7 | .000922 |
| 66. | 1.2740 | .19151 | 4110.6 | .000914 | 66. | 1.2752 | .19199 | 4142.5 | .000916 |
| 68. | 1.2657 | .18872 | 3899.2 | .000907 | 68. | 1.2669 | .18921 | 3929.4 | .000909 |
| 70. | 1.2573 | .18600 | 3699.0 | .000901 | 70. | 1.2586 | .18650 | 3727.6 | .000903 |
| 72. | 1.2489 | .18335 | 3509.7 | .000895 | 72. | 1.2502 | .18387 | 3536.9 | .000898 |
| 74. | 1.2405 | .18075 | 3331.3 | .000889 | 74. | 1.2419 | .18128 | 3357.3 | .000892 |
| 76. | 1.2321 | .17819 | 3163.5 | .000883 | 76. | 1.2335 | .17874 | 3188.2 | .000886 |
| 78. | 1.2236 | .17567 | 3005.7 | .000877 | 78. | 1.2251 | .17623 | 3029.3 | .000880 |
| 80. | 1.2151 | .17317 | 2857.5 | .000871 | 80. | 1.2166 | .17375 | 2880.1 | .000874 |
| 82. | 1.2065 | .17070 | 2718.3 | .000865 | 82. | 1.2081 | .17129 | 2740.1 | .000868 |
| 84. | 1.1980 | .16824 | 2587.8 | .000859 | 84. | 1.1996 | .16884 | 2608.7 | .000862 |
| 86. | 1.1893 | .16579 | 2465.3 | .000853 | 86. | 1.1910 | .16641 | 2485.4 | .000856 |
| 88. | 1.1807 | .16334 | 2350.2 | .000846 | 88. | 1.1824 | .16398 | 2369.6 | .000850 |
| 90. | 1.1720 | .16090 | 2242.3 | .000839 | 90. | 1.1738 | .16156 | 2261.0 | .000843 |
| 92. | 1.1632 | .15846 | 2140.8 | .000832 | 92. | 1.1651 | .15914 | 2159.0 | .000836 |
| 94. | 1.1544 | .15603 | 2045.5 | .000825 | 94. | 1.1564 | .15672 | 2063.1 | .000830 |
| 96. | 1.1455 | .15359 | 1955.9 | .000818 | 96. | 1.1476 | .15429 | 1972.9 | .000822 |
| 98. | 1.1366 | .15114 | 1871.5 | .000810 | 98. | 1.1387 | .15187 | 1888.1 | .000814 |
| 100. | 1.1276 | .14870 | 1792.0 | .000802 | 100. | 1.1298 | .14944 | 1808.2 | .000807 |
| 102. | 1.1185 | .14624 | 1717.1 | .000794 | 102. | 1.1209 | .14701 | 1732.9 | .000799 |
| 104. | 1.1094 | .14379 | 1646.5 | .000785 | 104. | 1.1118 | .14458 | 1661.9 | .000793 |
| 106. | 1.1002 | .14133 | 1579.7 | .000777 | 106. | 1.1027 | .14214 | 1594.8 | .000787 |
| 108. | 1.0909 | .13886 | 1516.6 | .000768 | 108. | 1.0935 | .13969 | 1531.4 | .000780 |
| 110. | 1.0815 | .13639 | 1456.9 | .000759 | 110. | 1.0842 | .13725 | 1471.4 | .000774 |
| 112. | 1.0720 | .13392 | 1400.3 | .000749 | 112. | 1.0748 | .13479 | 1414.6 | .000765 |
| 114. | 1.0625 | .13144 | 1346.6 | .000739 | 114. | 1.0654 | .13234 | 1360.7 | .000756 |
| 116. | 1.0528 | .12896 | 1295.6 | .000729 | 116. | 1.0558 | .12988 | 1309.5 | .000746 |
| 118. | 1.0430 | .12647 | 1247.2 | .000719 | 118. | 1.0462 | .12742 | 1261.0 | .000735 |
| 120. | 1.0331 | .12398 | 1201.1 | .000708 | 120. | 1.0364 | .12496 | 1214.7 | .000725 |
| 122. | 1.0230 | .12149 | 1157.2 | .000697 | 122. | 1.0265 | .12250 | 1170.7 | .000715 |
| 124. | 1.0129 | .11900 | 1115.3 | .000686 | 124. | 1.0165 | .12004 | 1128.7 | .000705 |
| 126. | 1.0025 | .11651 | 1075.3 | .000675 | 126. | 1.0063 | .11758 | 1088.7 | .000694 |
| 128. | .9920 | .11402 | 1037.1 | .000663 | 128. | .9960 | .11512 | 1050.4 | .000683 |
| 130. | .9813 | .11154 | 1000.5 | .000651 | 130. | .9856 | .11267 | 1013.8 | .000672 |
| 132. | .9705 | .10905 | 965.4 | .000639 | 132. | .9749 | .11022 | 978.7 | .000660 |
| 134. | .9594 | .10657 | 931.7 | .000627 | 134. | .9642 | .10778 | 945.1 | .000649 |
| 136. | .9482 | .10410 | 899.4 | .000615 | 136. | .9532 | .10534 | 912.9 | .000637 |
| 138. | .9368 | .10164 | 868.3 | .000602 | 138. | .9421 | .10293 | 881.9 | .000625 |
| 140. | .9251 | .09920 | 839.4 | .000590 | 140. | .9307 | .10052 | 852.0 | .000613 |
| 142. | .9132 | .09677 | 809.5 | .000577 | 142. | .9191 | .09813 | 823.3 | .000601 |
| 144. | .9011 | .09436 | 781.7 | .000565 | 144. | .9074 | .09576 | 795.7 | .000589 |
| 146. | .8887 | .09196 | 754.8 | .000552 | 146. | .8953 | .09343 | 769.0 | .000577 |
| 148. | .8760 | .08956 | 728.9 | .000540 | 148. | .8831 | .09114 | 743.2 | .000565 |
| 150. | .8630 | .08719 | 703.7 | .000527 | 150. | .8706 | .08891 | 718.3 | .000553 |
| 152. | .8497 | .08482 | 679.4 | .000514 | 152. | .8578 | .08677 | 694.3 | .000541 |
| 154. | .8361 | .08242 | 655.8 | .000505 | 154. | .8447 | .08477 | 671.0 | .000529 |
| 156. | .8221 | .08009 | 632.9 | .000493 | 156. | .8314 | .08258 | 648.4 | .000517 |
| 158. | .8078 | .07788 | 610.7 | .000480 | 158. | .8178 | .08032 | 626.5 | .000505 |
| 160. | .7931 | .07562 | 589.2 | .000468 | 160. | .8038 | .07811 | 605.3 | .000493 |
| 165. | .7548 | .07101 | 537.9 | .000438 | 165. | .7676 | .07282 | 555.1 | .000457 |
| 170. | .7139 | .06598 | 490.2 | .000413 | 170. | .7293 | .06749 | 508.6 | .000433 |
| 175. | .6705 | .06139 | 446.1 | .000392 | 175. | .6891 | .06335 | 465.7 | .000413 |
| 180. | .6254 | .05726 | 406.1 | .000380 | 180. | .6474 | .05927 | 426.6 | .000395 |
| 185. | .5798 | .05359 | 370.8 | .000378 | 185. | .6050 | .05563 | 391.8 | .000394 |
| 190. | .5357 | .05034 | 340.9 | .000388 | 190. | .5634 | .05241 | 361.6 | .000400 |
| 195. | .4948 | .04745 | 316.7 | .000410 | 195. | .5239 | .04955 | 336.3 | .000415 |
| 200. | .4582 | .04491 | 297.7 | .000441 | 200. | .4876 | .04703 | 315.8 | .000440 |
| 210. | .3983 | .04088 | 272.0 | .000522 | 210. | .4264 | .04291 | 286.8 | .000508 |
| 220. | .3536 | .03814 | 257.2 | .000617 | 220. | .3791 | .03995 | 269.2 | .000592 |
| 230. | .3195 | .03639 | 249.8 | .000719 | 230. | .3425 | .03795 | 258.6 | .000665 |
| 240. | .2928 | .03531 | 244.3 | .000824 | 240. | .3136 | .03666 | 252.7 | .000783 |
| 250. | .2712 | .03468 | 242.2 | .000930 | 250. | .2903 | .03586 | 249.5 | .000882 |
| 260. | .2533 | .03437 | 241.7 | .001037 | 260. | .2709 | .03541 | 248.1 | .000981 |
| 270. | .2381 | .03427 | 242.2 | .001144 | 270. | .2545 | .03520 | 247.9 | .001082 |
| 280. | .2251 | .03433 | 243.6 | .001252 | 280. | .2404 | .03516 | 248.7 | .001183 |
| 290. | .2136 | .03449 | 245.5 | .001360 | 290. | .2280 | .03524 | 250.2 | .001285 |
| 300. | .2036 | .03474 | 247.9 | .001466 | 300. | .2172 | .03542 | 252.1 | .001388 |
| 310. | .1946 | .03509 | 250.5 | .001581 | 310. | .2075 | .03572 | 254.5 | .001493 |
| 320. | .1865 | .03560 | 253.5 | .001700 | 320. | .1988 | .03620 | 257.1 | .001605 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 17.0 MPa Isobar | | | | | 18.0 MPa Isobar | | | | |
|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 56.288 | 1.3169 | .20766 | 5362.2 | .000954 | * 56.399 | 1.3175 | .20790 | 5390.9 | .000955 |
| 58. | 1.3097 | .20470 | 5138.9 | .000946 | 58. | 1.3108 | .20515 | 5179.8 | .000948 |
| 60. | 1.3013 | .20143 | 4883.0 | .000938 | 60. | 1.3025 | .20187 | 4922.2 | .000940 |
| 62. | 1.2930 | .19831 | 4637.3 | .000931 | 62. | 1.2942 | .19877 | 4673.2 | .000932 |
| 64. | 1.2847 | .19533 | 4400.5 | .000924 | 64. | 1.2859 | .19580 | 4434.3 | .000926 |
| 66. | 1.2765 | .19247 | 4174.4 | .000918 | 66. | 1.2777 | .19294 | 4206.4 | .000920 |
| 68. | 1.2682 | .18970 | 3959.6 | .000912 | 68. | 1.2694 | .19018 | 3989.8 | .000914 |
| 70. | 1.2599 | .18700 | 3756.2 | .000906 | 70. | 1.2611 | .18750 | 3784.9 | .000908 |
| 72. | 1.2516 | .18438 | 3564.2 | .000900 | 72. | 1.2529 | .18489 | 3591.4 | .000902 |
| 74. | 1.2432 | .18181 | 3383.2 | .000894 | 74. | 1.2446 | .18233 | 3409.1 | .000897 |
| 76. | 1.2349 | .17928 | 3212.9 | .000889 | 76. | 1.2363 | .17981 | 3237.7 | .000891 |
| 78. | 1.2265 | .17678 | 3053.0 | .000883 | 78. | 1.2280 | .17733 | 3076.6 | .000886 |
| 80. | 1.2181 | .17432 | 2902.8 | .000877 | 80. | 1.2196 | .17488 | 2925.4 | .000880 |
| 82. | 1.2097 | .17187 | 2761.8 | .000871 | 82. | 1.2112 | .17245 | 2783.5 | .000874 |
| 84. | 1.2012 | .16944 | 2629.5 | .000865 | 84. | 1.2028 | .17004 | 2650.4 | .000868 |
| 86. | 1.1927 | .16702 | 2505.4 | .000859 | 86. | 1.1944 | .16763 | 2525.5 | .000862 |
| 88. | 1.1842 | .16461 | 2389.0 | .000853 | 88. | 1.1859 | .16524 | 2408.3 | .000856 |
| 90. | 1.1756 | .16220 | 2279.7 | .000846 | 90. | 1.1774 | .16285 | 2298.3 | .000850 |
| 92. | 1.1670 | .15980 | 2177.0 | .000840 | 92. | 1.1688 | .16046 | 2195.1 | .000844 |
| 94. | 1.1583 | .15740 | 2080.6 | .000833 | 94. | 1.1602 | .15808 | 2098.1 | .000837 |
| 96. | 1.1496 | .15500 | 1989.9 | .000826 | 96. | 1.1515 | .15569 | 2006.9 | .000830 |
| 98. | 1.1408 | .15259 | 1904.6 | .000819 | 98. | 1.1428 | .15330 | 1921.1 | .000823 |
| 100. | 1.1320 | .15018 | 1824.3 | .000811 | 100. | 1.1341 | .15091 | 1840.3 | .000815 |
| 102. | 1.1231 | .14777 | 1748.6 | .000803 | 102. | 1.1253 | .14852 | 1764.2 | .000808 |
| 104. | 1.1141 | .14535 | 1677.2 | .000795 | 104. | 1.1164 | .14613 | 1692.4 | .000800 |
| 106. | 1.1051 | .14294 | 1609.8 | .000787 | 106. | 1.1075 | .14373 | 1624.6 | .000792 |
| 108. | 1.0960 | .14051 | 1546.1 | .000778 | 108. | 1.0985 | .14132 | 1560.6 | .000783 |
| 110. | 1.0868 | .13809 | 1485.8 | .000770 | 110. | 1.0894 | .13892 | 1500.1 | .000775 |
| 112. | 1.0776 | .13566 | 1428.7 | .000761 | 112. | 1.0802 | .13651 | 1442.8 | .000766 |
| 114. | 1.0682 | .13323 | 1374.6 | .000751 | 114. | 1.0710 | .13410 | 1388.5 | .000757 |
| 116. | 1.0588 | .13079 | 1323.3 | .000742 | 116. | 1.0617 | .13169 | 1336.9 | .000748 |
| 118. | 1.0493 | .12836 | 1274.6 | .000732 | 118. | 1.0523 | .12928 | 1288.0 | .000738 |
| 120. | 1.0396 | .12593 | 1228.2 | .000722 | 120. | 1.0428 | .12687 | 1241.5 | .000729 |
| 122. | 1.0299 | .12349 | 1184.1 | .000712 | 122. | 1.0332 | .12446 | 1197.2 | .000719 |
| 124. | 1.0200 | .12106 | 1142.0 | .000701 | 124. | 1.0235 | .12206 | 1155.1 | .000709 |
| 126. | 1.0100 | .11863 | 1101.9 | .000691 | 126. | 1.0137 | .11966 | 1114.9 | .000698 |
| 128. | .9999 | .11620 | 1063.6 | .000680 | 128. | 1.0037 | .11726 | 1076.5 | .000688 |
| 130. | .9897 | .11378 | 1026.9 | .000669 | 130. | .9937 | .11486 | 1039.8 | .000677 |
| 132. | .9793 | .11136 | 991.8 | .000658 | 132. | .9834 | .11248 | 1004.7 | .000666 |
| 134. | .9687 | .10896 | 958.2 | .000646 | 134. | .9731 | .11010 | 971.1 | .000655 |
| 136. | .9580 | .10656 | 926.0 | .000635 | 136. | .9626 | .10774 | 938.9 | .000644 |
| 138. | .9471 | .10417 | 895.1 | .000623 | 138. | .9520 | .10538 | 908.0 | .000633 |
| 140. | .9360 | .10180 | 865.3 | .000612 | 140. | .9412 | .10305 | 878.3 | .000622 |
| 142. | .9248 | .09945 | 836.7 | .000600 | 142. | .9302 | .10073 | 849.8 | .000611 |
| 144. | .9133 | .09712 | 809.2 | .000588 | 144. | .9190 | .09844 | 822.3 | .000600 |
| 146. | .9017 | .09482 | 782.7 | .000577 | 146. | .9077 | .09617 | 795.9 | .000588 |
| 148. | .8898 | .09257 | 757.1 | .000566 | 148. | .8962 | .09395 | 770.5 | .000577 |
| 150. | .8777 | .09037 | 732.4 | .000554 | 150. | .8845 | .09178 | 745.9 | .000566 |
| 152. | .8654 | .08823 | 708.5 | .000544 | 152. | .8725 | .08969 | 722.2 | .000556 |
| 154. | .8528 | .08626 | 685.4 | .000534 | 154. | .8604 | .08771 | 699.3 | .000547 |
| 156. | .8400 | .08411 | 663.1 | .000523 | 156. | .8481 | .08579 | 677.2 | .000536 |
| 158. | .8270 | .08189 | 641.5 | .000511 | 158. | .8355 | .08341 | 655.8 | .000525 |
| 160. | .8136 | .07973 | 620.6 | .000500 | 160. | .8227 | .08129 | 635.2 | .000515 |
| 165. | .7792 | .07454 | 571.2 | .000474 | 165. | .7898 | .07619 | 586.4 | .000490 |
| 170. | .7431 | .06969 | 525.6 | .000451 | 170. | .7555 | .07142 | 541.6 | .000468 |
| 175. | .7054 | .06522 | 483.7 | .000431 | 175. | .7199 | .06700 | 500.4 | .000449 |
| 180. | .6664 | .06117 | 445.4 | .000418 | 180. | .6833 | .06298 | 462.8 | .000435 |
| 185. | .6269 | .05754 | 411.0 | .000411 | 185. | .6460 | .05936 | 428.8 | .000427 |
| 190. | .5876 | .05433 | 380.8 | .000413 | 190. | .6089 | .05615 | 398.7 | .000426 |
| 195. | .5497 | .05149 | 354.9 | .000423 | 195. | .5727 | .05331 | 372.5 | .000433 |
| 200. | .5142 | .04898 | 333.4 | .000442 | 200. | .5382 | .05079 | 350.2 | .000448 |
| 210. | .4526 | .04482 | 301.7 | .000500 | 210. | .4770 | .04660 | 316.3 | .000496 |
| 220. | .4035 | .04171 | 281.6 | .000574 | 220. | .4268 | .04340 | 294.0 | .000562 |
| 230. | .3649 | .03951 | 269.1 | .000659 | 230. | .3865 | .04104 | 279.6 | .000638 |
| 240. | .3341 | .03803 | 261.5 | .000749 | 240. | .3540 | .03939 | 270.4 | .000721 |
| 250. | .3090 | .03706 | 257.0 | .000841 | 250. | .3275 | .03826 | 264.8 | .000807 |
| 260. | .2882 | .03646 | 254.7 | .000935 | 260. | .3054 | .03753 | 261.5 | .000895 |
| 270. | .2706 | .03614 | 253.8 | .001029 | 270. | .2866 | .03709 | 259.9 | .000984 |
| 280. | .2555 | .03600 | 254.0 | .001125 | 280. | .2705 | .03686 | 259.5 | .001074 |
| 290. | .2423 | .03601 | 255.0 | .001221 | 290. | .2564 | .03678 | 260.0 | .001165 |
| 300. | .2307 | .03612 | 256.6 | .001317 | 300. | .2441 | .03683 | 261.1 | .001256 |
| 310. | .2203 | .03636 | 258.6 | .001417 | 310. | .2330 | .03701 | 262.8 | .001350 |
| 320. | .2110 | .03681 | 260.9 | .001523 | 320. | .2232 | .03743 | 264.8 | .001451 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 19.0 MPa Isobar | | | | | 20.0 MPa Isobar | | | | |
|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 56.511 | 1.3181 | .20814 | 5419.4 | .000955 | * 56.623 | 1.3187 | .20838 | 5447.7 | .000956 |
| 58. | 1.3119 | .20559 | 5220.9 | .000949 | 58. | 1.3129 | .20603 | 5262.1 | .000950 |
| 60. | 1.3036 | .20232 | 4960.6 | .000941 | 60. | 1.3047 | .20277 | 4999.1 | .000943 |
| 62. | 1.2953 | .19922 | 4709.3 | .000934 | 62. | 1.2964 | .19967 | 4745.4 | .000936 |
| 64. | 1.2871 | .19626 | 4468.2 | .000928 | 64. | 1.2882 | .19672 | 4502.2 | .000930 |
| 66. | 1.2788 | .19341 | 4238.4 | .000922 | 66. | 1.2800 | .19388 | 4270.4 | .000924 |
| 68. | 1.2706 | .19066 | 4020.1 | .000916 | 68. | 1.2719 | .19115 | 4050.4 | .000918 |
| 70. | 1.2624 | .18800 | 3813.6 | .000910 | 70. | 1.2637 | .18849 | 3842.3 | .000912 |
| 72. | 1.2542 | .18540 | 3618.6 | .000905 | 72. | 1.2555 | .18590 | 3645.9 | .000907 |
| 74. | 1.2459 | .18285 | 3435.1 | .000899 | 74. | 1.2473 | .18337 | 3461.0 | .000902 |
| 76. | 1.2377 | .18035 | 3262.4 | .000894 | 76. | 1.2391 | .18088 | 3287.1 | .000896 |
| 78. | 1.2294 | .17788 | 3100.2 | .000888 | 78. | 1.2308 | .17843 | 3123.8 | .000891 |
| 80. | 1.2211 | .17544 | 2948.0 | .000883 | 80. | 1.2226 | .17600 | 2970.6 | .000885 |
| 82. | 1.2128 | .17303 | 2805.1 | .000877 | 82. | 1.2143 | .17360 | 2826.8 | .000880 |
| 84. | 1.2044 | .17063 | 2671.2 | .000871 | 84. | 1.2060 | .17121 | 2691.9 | .000874 |
| 86. | 1.1960 | .16824 | 2545.5 | .000866 | 86. | 1.1976 | .16884 | 2565.5 | .000869 |
| 88. | 1.1876 | .16586 | 2427.6 | .000860 | 88. | 1.1893 | .16648 | 2446.8 | .000863 |
| 90. | 1.1791 | .16349 | 2316.9 | .000853 | 90. | 1.1809 | .16412 | 2335.5 | .000857 |
| 92. | 1.1706 | .16112 | 2213.0 | .000847 | 92. | 1.1724 | .16177 | 2231.0 | .000851 |
| 94. | 1.1621 | .15875 | 2115.5 | .000840 | 94. | 1.1639 | .15942 | 2132.8 | .000844 |
| 96. | 1.1535 | .15638 | 2023.7 | .000834 | 96. | 1.1554 | .15706 | 2040.5 | .000838 |
| 98. | 1.1449 | .15401 | 1937.4 | .000827 | 98. | 1.1469 | .15471 | 1953.8 | .000831 |
| 100. | 1.1362 | .15164 | 1856.2 | .000820 | 100. | 1.1383 | .15236 | 1872.1 | .000824 |
| 102. | 1.1275 | .14926 | 1779.7 | .000812 | 102. | 1.1296 | .15000 | 1795.1 | .000816 |
| 104. | 1.1187 | .14689 | 1707.5 | .000804 | 104. | 1.1209 | .14764 | 1722.6 | .000809 |
| 106. | 1.1098 | .14451 | 1639.4 | .000797 | 106. | 1.1121 | .14528 | 1654.2 | .000801 |
| 108. | 1.1009 | .14213 | 1575.1 | .000788 | 108. | 1.1033 | .14292 | 1589.5 | .000793 |
| 110. | 1.0919 | .13974 | 1514.3 | .000780 | 110. | 1.0944 | .14055 | 1528.4 | .000785 |
| 112. | 1.0829 | .13736 | 1456.7 | .000772 | 112. | 1.0855 | .13819 | 1470.6 | .000777 |
| 114. | 1.0738 | .13497 | 1402.2 | .000763 | 114. | 1.0765 | .13582 | 1415.8 | .000768 |
| 116. | 1.0646 | .13258 | 1350.4 | .000754 | 116. | 1.0674 | .13345 | 1363.8 | .000760 |
| 118. | 1.0553 | .13019 | 1301.3 | .000745 | 118. | 1.0582 | .13109 | 1314.5 | .000751 |
| 120. | 1.0459 | .12781 | 1254.7 | .000735 | 120. | 1.0489 | .12872 | 1267.7 | .000741 |
| 122. | 1.0364 | .12542 | 1210.3 | .000725 | 122. | 1.0396 | .12636 | 1223.1 | .000732 |
| 124. | 1.0269 | .12304 | 1168.0 | .000716 | 124. | 1.0302 | .12401 | 1180.7 | .000722 |
| 126. | 1.0172 | .12066 | 1127.7 | .000706 | 126. | 1.0206 | .12165 | 1140.3 | .000713 |
| 128. | 1.0074 | .11829 | 1089.2 | .000695 | 128. | 1.0110 | .11931 | 1101.8 | .000703 |
| 130. | .9975 | .11593 | 1052.5 | .000685 | 130. | 1.0013 | .11697 | 1065.0 | .000693 |
| 132. | .9875 | .11357 | 1017.4 | .000675 | 132. | .9914 | .11464 | 1029.8 | .000683 |
| 134. | .9774 | .11122 | 983.7 | .000664 | 134. | .9815 | .11232 | 996.1 | .000672 |
| 136. | .9671 | .10889 | 951.5 | .000653 | 136. | .9714 | .11001 | 963.9 | .000662 |
| 138. | .9567 | .10656 | 920.6 | .000642 | 138. | .9612 | .10772 | 933.0 | .000651 |
| 140. | .9461 | .10426 | 891.0 | .000632 | 140. | .9508 | .10544 | 903.4 | .000641 |
| 142. | .9354 | .10197 | 862.5 | .000621 | 142. | .9404 | .10319 | 874.9 | .000631 |
| 144. | .9245 | .09971 | 835.1 | .000610 | 144. | .9297 | .10095 | 847.6 | .000620 |
| 146. | .9135 | .09748 | 808.8 | .000599 | 146. | .9190 | .09875 | 821.3 | .000610 |
| 148. | .9023 | .09529 | 783.4 | .000589 | 148. | .9080 | .09659 | 796.0 | .000600 |
| 150. | .8909 | .09315 | 759.0 | .000578 | 150. | .8970 | .09447 | 771.7 | .000590 |
| 152. | .8793 | .09107 | 735.4 | .000569 | 152. | .8857 | .09242 | 748.2 | .000580 |
| 154. | .8676 | .08911 | 712.7 | .000559 | 154. | .8744 | .09046 | 725.6 | .000571 |
| 156. | .8557 | .08701 | 690.7 | .000549 | 156. | .8628 | .08840 | 703.8 | .000561 |
| 158. | .8435 | .08488 | 669.6 | .000539 | 158. | .8511 | .08630 | 682.8 | .000551 |
| 160. | .8312 | .08279 | 649.1 | .000529 | 160. | .8392 | .08424 | 662.4 | .000542 |
| 165. | .7996 | .07778 | 600.9 | .000505 | 165. | .8088 | .07930 | 614.6 | .000519 |
| 170. | .7669 | .07307 | 556.6 | .000483 | 170. | .7773 | .07466 | 570.8 | .000498 |
| 175. | .7330 | .06870 | 516.0 | .000465 | 175. | .7450 | .07034 | 530.7 | .000480 |
| 180. | .6983 | .06471 | 478.9 | .000451 | 180. | .7119 | .06637 | 494.1 | .000466 |
| 185. | .6631 | .06110 | 445.4 | .000442 | 185. | .6784 | .06277 | 460.9 | .000457 |
| 190. | .6278 | .05788 | 415.4 | .000440 | 190. | .6448 | .05955 | 431.0 | .000453 |
| 195. | .5922 | .05503 | 389.0 | .000444 | 195. | .6117 | .05668 | 404.5 | .000455 |
| 200. | .5599 | .05251 | 366.2 | .000455 | 200. | .5796 | .05414 | 381.4 | .000463 |
| 210. | .4995 | .04829 | 330.7 | .000495 | 210. | .5204 | .04989 | 344.6 | .000497 |
| 220. | .4488 | .04501 | 306.3 | .000553 | 220. | .4696 | .04655 | 318.6 | .000548 |
| 230. | .4073 | .04254 | 290.1 | .000623 | 230. | .4272 | .04398 | 300.8 | .000611 |
| 240. | .3734 | .04074 | 279.5 | .000699 | 240. | .3922 | .04206 | 288.8 | .000682 |
| 250. | .3455 | .03947 | 272.7 | .000779 | 250. | .3631 | .04067 | 280.8 | .000756 |
| 260. | .3222 | .03861 | 268.5 | .000862 | 260. | .3386 | .03969 | 275.6 | .000834 |
| 270. | .3023 | .03806 | 266.2 | .000946 | 270. | .3178 | .03903 | 272.5 | .000913 |
| 280. | .2853 | .03773 | 265.1 | .001031 | 280. | .2998 | .03861 | 270.9 | .000993 |
| 290. | .2704 | .03757 | 265.1 | .001117 | 290. | .2842 | .03837 | 270.3 | .001074 |
| 300. | .2573 | .03754 | 265.8 | .001203 | 300. | .2704 | .03827 | 270.6 | .001156 |
| 310. | .2456 | .03767 | 267.1 | .001292 | 310. | .2581 | .03834 | 271.5 | .001241 |
| 320. | .2352 | .03805 | 268.8 | .001388 | 320. | .2470 | .03868 | 272.9 | .001332 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 21.0 MPa Isobar | | | | | 22.0 MPa Isobar | | | | |
|-----------------|---------------------------|---------------------------|------------------------------------|---------------------------------------|-----------------|---------------------------|---------------------------|------------------------------------|---------------------------------------|
| Temp. K | Density $\rho/cm^{*}3$ | Thermal Cond. W/m.K | Viscosity micro- $\rho/cm.s$ | Thermal Diffusivity $cm^{*}2/s$ | Temp. K | Density $\rho/cm^{*}3$ | Thermal Cond. W/m.K | Viscosity micro- $\rho/cm.s$ | Thermal Diffusivity $cm^{*}2/s$ |
| * 56.734 | 1.3193 | .20863 | 5475.8 | .000957 | * 56.845 | 1.3199 | .20867 | 5503.8 | .000958 |
| 58. | 1.3140 | .20646 | 5303.5 | .000952 | 58. | 1.3151 | .20690 | 5344.9 | .000953 |
| 60. | 1.3058 | .20321 | 5037.7 | .000944 | 60. | 1.3068 | .20365 | 5076.5 | .000946 |
| 62. | 1.2975 | .20012 | 4781.6 | .000938 | 62. | 1.2987 | .20057 | 4817.8 | .000939 |
| 64. | 1.2894 | .19718 | 4536.2 | .000931 | 64. | 1.2905 | .19763 | 4570.3 | .000933 |
| 66. | 1.2812 | .19435 | 4302.5 | .000925 | 66. | 1.2824 | .19482 | 4334.6 | .000927 |
| 68. | 1.2731 | .19162 | 4080.7 | .000920 | 68. | 1.2743 | .19210 | 4111.1 | .000922 |
| 70. | 1.2649 | .18898 | 3871.0 | .000914 | 70. | 1.2662 | .18947 | 3899.7 | .000917 |
| 72. | 1.2568 | .18640 | 3673.2 | .000909 | 72. | 1.2580 | .18690 | 3700.4 | .000911 |
| 74. | 1.2486 | .18388 | 3486.9 | .000904 | 74. | 1.2499 | .18439 | 3512.9 | .000906 |
| 76. | 1.2404 | .18141 | 3311.8 | .000899 | 76. | 1.2418 | .18193 | 3336.5 | .000901 |
| 78. | 1.2322 | .17897 | 3147.4 | .000893 | 78. | 1.2336 | .17950 | 3171.0 | .000895 |
| 80. | 1.2240 | .17656 | 2993.1 | .000888 | 80. | 1.2255 | .17711 | 3015.7 | .000891 |
| 82. | 1.2158 | .17417 | 2848.4 | .000883 | 82. | 1.2173 | .17473 | 2870.0 | .000886 |
| 84. | 1.2075 | .17180 | 2712.7 | .000877 | 84. | 1.2091 | .17238 | 2733.4 | .000880 |
| 86. | 1.1993 | .16944 | 2585.4 | .000872 | 86. | 1.2008 | .17004 | 2605.3 | .000875 |
| 88. | 1.1909 | .16709 | 2466.0 | .000866 | 88. | 1.1926 | .16770 | 2485.2 | .000869 |
| 90. | 1.1826 | .16475 | 2354.0 | .000860 | 90. | 1.1843 | .16538 | 2372.5 | .000863 |
| 92. | 1.1742 | .16241 | 2248.8 | .000854 | 92. | 1.1760 | .16305 | 2266.7 | .000857 |
| 94. | 1.1658 | .16008 | 2150.1 | .000848 | 94. | 1.1676 | .16073 | 2167.3 | .000851 |
| 96. | 1.1573 | .15774 | 2057.3 | .000841 | 96. | 1.1592 | .15841 | 2074.0 | .000845 |
| 98. | 1.1488 | .15541 | 1970.0 | .000835 | 98. | 1.1508 | .15609 | 1986.2 | .000839 |
| 100. | 1.1403 | .15307 | 1887.9 | .000828 | 100. | 1.1423 | .15377 | 1903.6 | .000832 |
| 102. | 1.1317 | .15073 | 1810.5 | .000821 | 102. | 1.1338 | .15145 | 1825.8 | .000825 |
| 104. | 1.1231 | .14839 | 1737.6 | .000813 | 104. | 1.1253 | .14913 | 1752.5 | .000818 |
| 106. | 1.1144 | .14605 | 1668.8 | .000806 | 106. | 1.1166 | .14680 | 1683.3 | .000810 |
| 108. | 1.1057 | .14370 | 1603.8 | .000798 | 108. | 1.1080 | .14448 | 1618.0 | .000803 |
| 110. | 1.0969 | .14136 | 1542.4 | .000790 | 110. | 1.0993 | .14215 | 1556.3 | .000795 |
| 112. | 1.0880 | .13901 | 1484.3 | .000782 | 112. | 1.0905 | .13982 | 1497.9 | .000787 |
| 114. | 1.0791 | .13666 | 1429.3 | .000774 | 114. | 1.0817 | .13749 | 1442.6 | .000779 |
| 116. | 1.0701 | .13432 | 1377.1 | .000765 | 116. | 1.0728 | .13517 | 1390.3 | .000771 |
| 118. | 1.0610 | .13197 | 1327.6 | .000756 | 118. | 1.0638 | .13284 | 1340.6 | .000762 |
| 120. | 1.0519 | .12963 | 1280.6 | .000747 | 120. | 1.0548 | .13052 | 1293.3 | .000753 |
| 122. | 1.0427 | .12729 | 1235.9 | .000738 | 122. | 1.0457 | .12820 | 1248.5 | .000745 |
| 124. | 1.0334 | .12495 | 1193.3 | .000729 | 124. | 1.0365 | .12589 | 1205.8 | .000737 |
| 126. | 1.0240 | .12263 | 1152.8 | .000720 | 126. | 1.0273 | .12358 | 1165.1 | .000728 |
| 128. | 1.0145 | .12030 | 1114.2 | .000710 | 128. | 1.0179 | .12128 | 1126.4 | .000717 |
| 130. | 1.0049 | .11799 | 1077.3 | .000700 | 130. | 1.0085 | .11899 | 1089.4 | .000707 |
| 132. | .9953 | .11568 | 1042.0 | .000690 | 132. | .9990 | .11671 | 1054.1 | .000698 |
| 134. | .9855 | .11339 | 1008.3 | .000680 | 134. | .9893 | .11444 | 1020.3 | .000688 |
| 136. | .9756 | .11111 | 976.1 | .000670 | 136. | .9796 | .11219 | 988.0 | .000678 |
| 138. | .9656 | .10884 | 945.2 | .000660 | 138. | .9698 | .10995 | 957.1 | .000669 |
| 140. | .9554 | .10659 | 915.5 | .000650 | 140. | .9598 | .10772 | 927.5 | .000659 |
| 142. | .9452 | .10437 | 887.1 | .000640 | 142. | .9498 | .10552 | 899.0 | .000649 |
| 144. | .9348 | .10216 | 859.8 | .000630 | 144. | .9396 | .10334 | 871.7 | .000639 |
| 146. | .9243 | .09999 | 833.6 | .000620 | 146. | .9293 | .10119 | 845.5 | .000629 |
| 148. | .9136 | .09785 | 808.3 | .000610 | 148. | .9189 | .09908 | 820.3 | .000620 |
| 150. | .9028 | .09575 | 784.1 | .000600 | 150. | .9084 | .09700 | 796.1 | .000611 |
| 152. | .8919 | .09372 | 760.7 | .000591 | 152. | .8977 | .09499 | 772.8 | .000601 |
| 154. | .8808 | .09178 | 738.1 | .000582 | 154. | .8869 | .09306 | 750.3 | .000593 |
| 156. | .8696 | .08974 | 716.4 | .000573 | 156. | .8760 | .09104 | 728.7 | .000584 |
| 158. | .8582 | .08767 | 695.5 | .000563 | 158. | .8650 | .08900 | 707.8 | .000574 |
| 160. | .8467 | .08565 | 675.3 | .000554 | 160. | .8538 | .08701 | 687.7 | .000565 |
| 165. | .8173 | .08078 | 627.8 | .000532 | 165. | .8254 | .08220 | 640.5 | .000544 |
| 170. | .7871 | .07619 | 584.4 | .000512 | 170. | .7961 | .07767 | 597.4 | .000525 |
| 175. | .7560 | .07191 | 544.6 | .000495 | 175. | .7663 | .07343 | 557.9 | .000508 |
| 180. | .7244 | .06797 | 508.4 | .000481 | 180. | .7358 | .06952 | 522.0 | .000495 |
| 185. | .6923 | .06439 | 475.4 | .000471 | 185. | .7051 | .06594 | 489.3 | .000485 |
| 190. | .6602 | .06115 | 445.8 | .000466 | 190. | .6743 | .06271 | 459.7 | .000479 |
| 195. | .6285 | .05827 | 419.2 | .000467 | 195. | .6438 | .05981 | 433.2 | .000478 |
| 200. | .5975 | .05571 | 395.9 | .000472 | 200. | .6139 | .05722 | 409.7 | .000482 |
| 210. | .5397 | .05141 | 358.1 | .000500 | 210. | .5575 | .05288 | 371.1 | .000505 |
| 220. | .4891 | .04803 | 330.6 | .000545 | 220. | .5074 | .04945 | 342.4 | .000545 |
| 230. | .4462 | .04538 | 311.4 | .000603 | 230. | .4642 | .04674 | 321.8 | .000597 |
| 240. | .4102 | .04336 | 298.0 | .000668 | 240. | .4276 | .04463 | 307.3 | .000657 |
| 250. | .3801 | .04186 | 288.9 | .000737 | 250. | .3966 | .04303 | 297.1 | .000722 |
| 260. | .3547 | .04077 | 282.9 | .000810 | 260. | .3703 | .04184 | 290.2 | .000790 |
| 270. | .3329 | .04000 | 279.0 | .000885 | 270. | .3477 | .04098 | 285.5 | .000861 |
| 280. | .3141 | .03949 | 276.7 | .000961 | 280. | .3282 | .04038 | 282.6 | .000932 |
| 290. | .2977 | .03917 | 275.6 | .001038 | 290. | .3110 | .03998 | 281.0 | .001005 |
| 300. | .2832 | .03900 | 275.4 | .001115 | 300. | .2959 | .03974 | 280.4 | .001079 |
| 310. | .2703 | .03902 | 275.9 | .001195 | 310. | .2824 | .03970 | 280.5 | .001155 |
| 320. | .2588 | .03931 | 277.0 | .001283 | 320. | .2704 | .03996 | 281.2 | .001239 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 23.0 MPa Isobar | | | | | 24.0 MPa Isobar | | | | |
|-----------------|------------------------------|---------------------------|-------------------------------|--|-----------------|------------------------------|---------------------------|-------------------------------|--|
| Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s | Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s |
| * 56.956 | 1.3205 | .20911 | 5531.6 | .000959 | * 57.057 | 1.3211 | .20935 | 5559.3 | .000960 |
| 58. | 1.3161 | .20734 | 5386.5 | .000955 | 58. | 1.3172 | .20777 | 5428.3 | .000956 |
| 60. | 1.3079 | .20409 | 5115.3 | .000947 | 60. | 1.3090 | .20453 | 5154.2 | .000949 |
| 62. | 1.2998 | .20102 | 4854.2 | .000941 | 62. | 1.3009 | .20146 | 4890.6 | .000943 |
| 64. | 1.2916 | .19809 | 4604.5 | .000935 | 64. | 1.2928 | .19854 | 4638.7 | .000937 |
| 66. | 1.2835 | .19528 | 4366.8 | .000929 | 66. | 1.2847 | .19574 | 4399.0 | .000931 |
| 68. | 1.2755 | .19258 | 4141.5 | .000924 | 68. | 1.2766 | .19305 | 4171.9 | .000926 |
| 70. | 1.2674 | .18995 | 3928.5 | .000919 | 70. | 1.2686 | .19043 | 3957.3 | .000921 |
| 72. | 1.2593 | .18740 | 3727.7 | .000914 | 72. | 1.2605 | .18789 | 3755.0 | .000916 |
| 74. | 1.2512 | .18490 | 3538.8 | .000909 | 74. | 1.2525 | .18541 | 3564.7 | .000911 |
| 76. | 1.2431 | .18245 | 3361.3 | .000904 | 76. | 1.2445 | .18297 | 3386.0 | .000905 |
| 78. | 1.2350 | .18004 | 3194.6 | .000899 | 78. | 1.2364 | .18057 | 3218.1 | .000901 |
| 80. | 1.2269 | .17766 | 3038.2 | .000893 | 80. | 1.2283 | .17820 | 3060.7 | .000896 |
| 82. | 1.2188 | .17530 | 2891.6 | .000888 | 82. | 1.2202 | .17585 | 2913.1 | .000891 |
| 84. | 1.2106 | .17295 | 2754.1 | .000883 | 84. | 1.2121 | .17353 | 2774.7 | .000886 |
| 86. | 1.2024 | .17063 | 2625.2 | .000878 | 86. | 1.2040 | .17121 | 2645.0 | .000881 |
| 88. | 1.1942 | .16831 | 2504.3 | .000872 | 88. | 1.1958 | .16891 | 2523.4 | .000875 |
| 90. | 1.1860 | .16600 | 2390.9 | .000867 | 90. | 1.1976 | .16661 | 2409.3 | .000870 |
| 92. | 1.1777 | .16369 | 2284.4 | .000861 | 92. | 1.1794 | .16432 | 2302.2 | .000864 |
| 94. | 1.1694 | .16138 | 2184.5 | .000855 | 94. | 1.1712 | .16203 | 2201.7 | .000858 |
| 96. | 1.1611 | .15908 | 2090.6 | .000849 | 96. | 1.1629 | .15974 | 2107.2 | .000852 |
| 98. | 1.1527 | .15678 | 2002.3 | .000842 | 98. | 1.1546 | .15745 | 2018.4 | .000846 |
| 100. | 1.1443 | .15447 | 1919.3 | .000836 | 100. | 1.1463 | .15517 | 1934.9 | .000840 |
| 102. | 1.1359 | .15217 | 1841.0 | .000829 | 102. | 1.1379 | .15288 | 1856.2 | .000833 |
| 104. | 1.1274 | .14986 | 1767.3 | .000822 | 104. | 1.1295 | .15059 | 1782.1 | .000826 |
| 106. | 1.1189 | .14755 | 1697.8 | .000815 | 106. | 1.1210 | .14830 | 1712.2 | .000819 |
| 108. | 1.1103 | .14524 | 1632.2 | .000808 | 108. | 1.1125 | .14600 | 1646.2 | .000812 |
| 110. | 1.1017 | .14293 | 1570.1 | .000800 | 110. | 1.1040 | .14371 | 1583.9 | .000805 |
| 112. | 1.0930 | .14062 | 1511.5 | .000792 | 112. | 1.0954 | .14142 | 1524.9 | .000797 |
| 114. | 1.0842 | .13832 | 1455.9 | .000784 | 114. | 1.0867 | .13913 | 1469.1 | .000789 |
| 116. | 1.0754 | .13601 | 1403.3 | .000776 | 116. | 1.0780 | .13684 | 1416.3 | .000781 |
| 118. | 1.0666 | .13370 | 1353.4 | .000768 | 118. | 1.0693 | .13455 | 1366.1 | .000773 |
| 120. | 1.0577 | .13140 | 1306.0 | .000759 | 120. | 1.0605 | .13227 | 1318.5 | .000765 |
| 122. | 1.0487 | .12910 | 1261.0 | .000751 | 122. | 1.0515 | .12999 | 1273.3 | .000756 |
| 124. | 1.0396 | .12681 | 1218.1 | .000742 | 124. | 1.0426 | .12772 | 1230.3 | .000748 |
| 126. | 1.0305 | .12452 | 1177.3 | .000733 | 126. | 1.0336 | .12545 | 1189.4 | .000739 |
| 128. | 1.0213 | .12225 | 1138.5 | .000724 | 128. | 1.0245 | .12319 | 1150.4 | .000730 |
| 130. | 1.0120 | .11998 | 1101.4 | .000714 | 130. | 1.0154 | .12095 | 1113.2 | .000721 |
| 132. | 1.0026 | .11772 | 1066.0 | .000705 | 132. | 1.0061 | .11871 | 1077.7 | .000712 |
| 134. | .9931 | .11547 | 1032.1 | .000696 | 134. | .9968 | .11649 | 1043.8 | .000703 |
| 136. | .9835 | .11324 | 999.8 | .000686 | 136. | .9874 | .11428 | 1011.4 | .000694 |
| 138. | .9739 | .11102 | 968.8 | .000677 | 138. | .9779 | .11208 | 980.3 | .000685 |
| 140. | .9641 | .10883 | 939.1 | .000667 | 140. | .9683 | .10990 | 950.6 | .000675 |
| 142. | .9543 | .10665 | 910.7 | .000658 | 142. | .9588 | .10775 | 922.2 | .000666 |
| 144. | .9443 | .10449 | 883.4 | .000648 | 144. | .9488 | .10562 | 894.9 | .000657 |
| 146. | .9342 | .10237 | 857.2 | .000639 | 146. | .9390 | .10351 | 868.6 | .000648 |
| 148. | .9240 | .10027 | 832.0 | .000629 | 148. | .9290 | .10144 | 843.5 | .000639 |
| 150. | .9138 | .09822 | 807.8 | .000620 | 150. | .9189 | .09941 | 819.3 | .000630 |
| 152. | .9033 | .09623 | 784.5 | .000612 | 152. | .9087 | .09743 | 796.0 | .000621 |
| 154. | .8928 | .09431 | 762.1 | .000603 | 154. | .8985 | .09552 | 773.6 | .000613 |
| 156. | .8822 | .09233 | 740.5 | .000594 | 156. | .8881 | .09355 | 752.1 | .000604 |
| 158. | .8714 | .09030 | 719.8 | .000585 | 158. | .8776 | .09156 | 731.4 | .000595 |
| 160. | .8605 | .08833 | 699.7 | .000577 | 160. | .8670 | .08962 | 711.4 | .000587 |
| 165. | .8329 | .08358 | 652.7 | .000556 | 165. | .8401 | .08492 | 664.6 | .000567 |
| 170. | .8047 | .07910 | 600.8 | .000537 | 170. | .8127 | .08040 | 621.9 | .000549 |
| 175. | .7758 | .07490 | 570.7 | .000521 | 175. | .7848 | .07633 | 582.9 | .000533 |
| 180. | .7465 | .07102 | 534.7 | .000508 | 180. | .7564 | .07246 | 547.3 | .000520 |
| 185. | .7169 | .06745 | 502.4 | .000498 | 185. | .7279 | .06891 | 514.9 | .000510 |
| 190. | .6873 | .06421 | 472.9 | .000491 | 190. | .6993 | .06567 | 485.6 | .000503 |
| 195. | .6578 | .06130 | 446.5 | .000489 | 195. | .6709 | .06274 | 459.1 | .000500 |
| 200. | .6290 | .05869 | 422.8 | .000492 | 200. | .6429 | .06012 | 435.4 | .000502 |
| 210. | .5740 | .05430 | 383.6 | .000511 | 210. | .5894 | .05568 | 395.6 | .000517 |
| 220. | .5245 | .05082 | 354.0 | .000546 | 220. | .5406 | .05214 | 365.2 | .000548 |
| 230. | .4813 | .04805 | 332.2 | .000593 | 230. | .4975 | .04932 | 342.4 | .000591 |
| 240. | .4442 | .04587 | 316.5 | .000649 | 240. | .4602 | .04708 | 325.7 | .000642 |
| 250. | .4126 | .04418 | 305.4 | .000709 | 250. | .4280 | .04531 | 313.6 | .000699 |
| 260. | .3855 | .04290 | 297.5 | .000773 | 260. | .4003 | .04395 | 304.9 | .000759 |
| 270. | .3622 | .04195 | 292.2 | .000840 | 270. | .3763 | .04292 | 298.8 | .000822 |
| 280. | .3419 | .04127 | 288.6 | .000908 | 280. | .3553 | .04216 | 294.7 | .000887 |
| 290. | .3241 | .04080 | 286.5 | .000977 | 290. | .3369 | .04161 | 292.0 | .000952 |
| 300. | .3084 | .04049 | 285.4 | .001047 | 300. | .3207 | .04124 | 290.5 | .001019 |
| 310. | .2944 | .04039 | 285.1 | .001120 | 310. | .3061 | .04108 | 289.8 | .001084 |
| 320. | .2818 | .04060 | 285.5 | .001200 | 320. | .2930 | .04125 | 289.9 | .001165 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 25.0 MPa Isobar | | | | | 26.0 MPa Isobar | | | | |
|-----------------|--------------------|---------------------------|--------------------------------|-----------------------------------|-----------------|--------------------|---------------------------|--------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm**s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm**s | Thermal Diffusivity cm**2/s |
| * 57.178 | 1.3216 | .20959 | 5586.8 | .000960 | * 57.288 | 1.3222 | .20983 | 5614.1 | .000961 |
| 58. | 1.3183 | .20920 | 5470.1 | .000957 | 58. | 1.3193 | .20863 | 5512.1 | .000959 |
| 60. | 1.3101 | .20497 | 5193.2 | .000950 | 60. | 1.3111 | .20540 | 5232.3 | .000952 |
| 62. | 1.3020 | .20191 | 4927.1 | .000944 | 62. | 1.3030 | .20235 | 4963.7 | .000946 |
| 64. | 1.2939 | .19899 | 4672.9 | .000938 | 64. | 1.2950 | .19944 | 4707.3 | .000940 |
| 66. | 1.2858 | .19620 | 4431.3 | .000933 | 66. | 1.2870 | .19666 | 4463.6 | .000935 |
| 68. | 1.2778 | .19352 | 4202.3 | .000928 | 68. | 1.2790 | .19398 | 4232.8 | .000930 |
| 70. | 1.2698 | .19091 | 3986.1 | .000923 | 70. | 1.2710 | .19139 | 4014.9 | .000925 |
| 72. | 1.2618 | .18838 | 3782.4 | .000918 | 72. | 1.2631 | .18887 | 3809.7 | .000920 |
| 74. | 1.2538 | .18591 | 3590.7 | .000913 | 74. | 1.2551 | .18641 | 3616.7 | .000915 |
| 76. | 1.2458 | .18349 | 3410.7 | .000908 | 76. | 1.2471 | .18400 | 3435.4 | .000911 |
| 78. | 1.2378 | .18110 | 3241.7 | .000904 | 78. | 1.2391 | .18162 | 3265.2 | .000906 |
| 80. | 1.2297 | .17874 | 3083.2 | .000899 | 80. | 1.2311 | .17928 | 3105.7 | .000901 |
| 82. | 1.2217 | .17641 | 2934.7 | .000894 | 82. | 1.2231 | .17696 | 2956.2 | .000896 |
| 84. | 1.2136 | .17409 | 2795.4 | .000889 | 84. | 1.2151 | .17466 | 2816.0 | .000892 |
| 86. | 1.2055 | .17180 | 2664.8 | .000884 | 86. | 1.2071 | .17237 | 2684.6 | .000887 |
| 88. | 1.1974 | .16951 | 2542.4 | .000878 | 88. | 1.1990 | .17010 | 2561.4 | .000881 |
| 90. | 1.1893 | .16722 | 2427.6 | .000873 | 90. | 1.1909 | .16783 | 2445.9 | .000876 |
| 92. | 1.1811 | .16495 | 2319.9 | .000867 | 92. | 1.1828 | .16557 | 2337.5 | .000871 |
| 94. | 1.1730 | .16267 | 2218.7 | .000862 | 94. | 1.1747 | .16331 | 2235.8 | .000865 |
| 96. | 1.1647 | .16040 | 2123.7 | .000856 | 96. | 1.1665 | .16105 | 2140.2 | .000859 |
| 98. | 1.1565 | .15813 | 2034.4 | .000850 | 98. | 1.1584 | .15879 | 2050.4 | .000853 |
| 100. | 1.1482 | .15585 | 1950.4 | .000844 | 100. | 1.1501 | .15653 | 1965.9 | .000847 |
| 102. | 1.1399 | .15358 | 1871.3 | .000837 | 102. | 1.1419 | .15428 | 1886.4 | .000841 |
| 104. | 1.1316 | .15131 | 1796.8 | .000830 | 104. | 1.1336 | .15202 | 1811.4 | .000835 |
| 106. | 1.1232 | .14903 | 1726.5 | .000824 | 106. | 1.1253 | .14976 | 1740.8 | .000828 |
| 108. | 1.1149 | .14675 | 1660.2 | .000817 | 108. | 1.1169 | .14750 | 1674.1 | .000821 |
| 110. | 1.1063 | .14448 | 1597.5 | .000809 | 110. | 1.1086 | .14524 | 1611.1 | .000814 |
| 112. | 1.0978 | .14220 | 1538.3 | .000802 | 112. | 1.1001 | .14298 | 1551.6 | .000807 |
| 114. | 1.0892 | .13993 | 1482.2 | .000794 | 114. | 1.0916 | .14072 | 1495.2 | .000799 |
| 116. | 1.0806 | .13766 | 1429.1 | .000787 | 116. | 1.0831 | .13847 | 1441.9 | .000792 |
| 118. | 1.0719 | .13539 | 1378.8 | .000779 | 118. | 1.0745 | .13622 | 1391.3 | .000784 |
| 120. | 1.0632 | .13313 | 1331.0 | .000771 | 120. | 1.0659 | .13397 | 1343.3 | .000776 |
| 122. | 1.0544 | .13087 | 1285.6 | .000762 | 122. | 1.0572 | .13173 | 1297.7 | .000768 |
| 124. | 1.0456 | .12861 | 1242.4 | .000754 | 124. | 1.0485 | .12949 | 1254.3 | .000760 |
| 126. | 1.0367 | .12637 | 1201.3 | .000745 | 126. | 1.0397 | .12727 | 1213.1 | .000751 |
| 128. | 1.0277 | .12413 | 1162.2 | .000737 | 128. | 1.0308 | .12505 | 1173.8 | .000743 |
| 130. | 1.0187 | .12190 | 1124.9 | .000728 | 130. | 1.0219 | .12284 | 1136.4 | .000734 |
| 132. | 1.0096 | .11968 | 1089.3 | .000719 | 132. | 1.0129 | .12064 | 1100.7 | .000726 |
| 134. | 1.0004 | .11748 | 1055.3 | .000710 | 134. | 1.0039 | .11846 | 1066.6 | .000717 |
| 136. | .9911 | .11529 | 1022.8 | .000701 | 136. | .9947 | .11629 | 1034.0 | .000708 |
| 138. | .9819 | .11312 | 991.7 | .000692 | 138. | .9855 | .11414 | 1002.9 | .000700 |
| 140. | .9723 | .11096 | 961.9 | .000683 | 140. | .9763 | .11200 | 973.1 | .000691 |
| 142. | .9628 | .10883 | 933.4 | .000674 | 142. | .9669 | .10989 | 944.5 | .000682 |
| 144. | .9532 | .10672 | 906.1 | .000665 | 144. | .9575 | .10780 | 917.1 | .000673 |
| 146. | .9435 | .10464 | 879.9 | .000656 | 146. | .9480 | .10573 | 890.9 | .000665 |
| 148. | .9338 | .10258 | 854.7 | .000647 | 148. | .9384 | .10370 | 865.7 | .000656 |
| 150. | .9239 | .10057 | 830.5 | .000639 | 150. | .9287 | .10170 | 841.5 | .000648 |
| 152. | .9139 | .99861 | 807.3 | .000630 | 152. | .9189 | .99976 | 818.2 | .000639 |
| 154. | .9039 | .99671 | 784.9 | .000623 | 154. | .9091 | .99787 | 795.9 | .000632 |
| 156. | .8937 | .99476 | 763.4 | .000614 | 156. | .8992 | .99594 | 774.4 | .000624 |
| 158. | .8835 | .99279 | 742.7 | .000606 | 158. | .8891 | .99400 | 753.7 | .000615 |
| 160. | .8732 | .99087 | 722.7 | .000597 | 160. | .8791 | .99209 | 733.8 | .000607 |
| 165. | .8470 | .08623 | 676.0 | .000578 | 165. | .8535 | .08750 | 687.2 | .000588 |
| 170. | .8203 | .08184 | 633.5 | .000560 | 170. | .8275 | .08315 | 644.7 | .000571 |
| 175. | .7932 | .07771 | 594.6 | .000545 | 175. | .8012 | .07905 | 606.0 | .000556 |
| 180. | .7657 | .07387 | 559.2 | .000532 | 180. | .7745 | .07524 | 570.7 | .000543 |
| 185. | .7381 | .07033 | 527.0 | .000522 | 185. | .7477 | .07171 | 538.5 | .000533 |
| 190. | .7104 | .06709 | 497.7 | .000515 | 190. | .7209 | .06847 | 509.3 | .000526 |
| 195. | .6829 | .06415 | 471.2 | .000511 | 195. | .6942 | .06552 | 482.8 | .000522 |
| 200. | .6558 | .06151 | 447.4 | .000512 | 200. | .6679 | .06286 | 459.0 | .000521 |
| 210. | .6037 | .05702 | 407.3 | .000524 | 210. | .6171 | .05833 | 418.5 | .000531 |
| 220. | .5558 | .05343 | 376.1 | .000551 | 220. | .5700 | .05469 | 386.6 | .000555 |
| 230. | .5129 | .05056 | 352.4 | .000590 | 230. | .5275 | .05176 | 362.2 | .000590 |
| 240. | .4754 | .04826 | 334.7 | .000637 | 240. | .4900 | .04941 | 343.7 | .000634 |
| 250. | .4428 | .04643 | 321.7 | .000690 | 250. | .4571 | .04752 | 329.9 | .000684 |
| 260. | .4146 | .04499 | 312.3 | .000747 | 260. | .4284 | .04601 | 319.6 | .000737 |
| 270. | .3900 | .04388 | 305.5 | .000807 | 270. | .4033 | .04484 | 312.2 | .000794 |
| 280. | .3685 | .04305 | 300.8 | .000868 | 280. | .3813 | .04393 | 306.9 | .000852 |
| 290. | .3495 | .04243 | 297.6 | .000931 | 290. | .3618 | .04325 | 303.2 | .000912 |
| 300. | .3327 | .04199 | 295.6 | .000994 | 300. | .3445 | .04274 | 300.7 | .000972 |
| 310. | .3176 | .04177 | 294.5 | .001061 | 310. | .3290 | .04247 | 299.3 | .001035 |
| 320. | .3041 | .04190 | 294.3 | .001134 | 320. | .3150 | .04255 | 298.7 | .001106 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 27.0 MPa Isobar | | | | | 28.0 MPa Isobar | | | | |
|-----------------|-------------------|---------------|------------|---------------------|-----------------|-------------------|---------------|------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm ³ | W/m.K | micro-cm.s | cm ² /s | K | g/cm ³ | W/m.K | micro-cm.s | cm ² /s |
| * 57.399 | 1.3228 | .21007 | 5441.2 | .000962 | * 57.509 | 1.3234 | .21031 | 5668.2 | .000963 |
| 58. | 1.3203 | .20906 | 5554.2 | .000960 | 58. | 1.3214 | .20949 | 5596.4 | .000961 |
| 60. | 1.3122 | .20583 | 5271.5 | .000953 | 60. | 1.3133 | .20627 | 5310.8 | .000955 |
| 62. | 1.3041 | .20279 | 5000.3 | .000947 | 62. | 1.3052 | .20323 | 5037.1 | .000949 |
| 64. | 1.2961 | .19989 | 4741.6 | .000942 | 64. | 1.2972 | .20034 | 4776.1 | .000943 |
| 66. | 1.2881 | .19712 | 4495.9 | .000936 | 66. | 1.2892 | .19757 | 4528.3 | .000938 |
| 68. | 1.2802 | .19445 | 4261.3 | .000932 | 68. | 1.2813 | .19491 | 4293.9 | .000933 |
| 70. | 1.2722 | .19187 | 4043.8 | .000927 | 70. | 1.2734 | .19234 | 4072.7 | .000929 |
| 72. | 1.2643 | .18936 | 3837.0 | .000922 | 72. | 1.2655 | .18984 | 3864.4 | .000924 |
| 74. | 1.2564 | .18691 | 3642.6 | .000918 | 74. | 1.2576 | .18741 | 3668.6 | .000920 |
| 76. | 1.2484 | .18451 | 3460.0 | .000913 | 76. | 1.2497 | .18502 | 3484.7 | .000915 |
| 78. | 1.2405 | .18215 | 3288.8 | .000908 | 78. | 1.2418 | .18267 | 3312.3 | .000911 |
| 80. | 1.2325 | .17981 | 3128.2 | .000904 | 80. | 1.2339 | .18035 | 3150.6 | .000906 |
| 82. | 1.2246 | .17751 | 2977.7 | .000899 | 82. | 1.2260 | .17805 | 2999.1 | .000902 |
| 84. | 1.2166 | .17522 | 2836.6 | .000894 | 84. | 1.2180 | .17578 | 2857.2 | .000897 |
| 86. | 1.2086 | .17295 | 2704.4 | .000889 | 86. | 1.2101 | .17352 | 2724.1 | .000892 |
| 88. | 1.2006 | .17069 | 2580.4 | .000884 | 88. | 1.2021 | .17127 | 2599.4 | .000887 |
| 90. | 1.1925 | .16843 | 2464.2 | .000879 | 90. | 1.1941 | .16903 | 2482.4 | .000882 |
| 92. | 1.1845 | .16618 | 2355.2 | .000874 | 92. | 1.1861 | .16680 | 2372.7 | .000877 |
| 94. | 1.1764 | .16394 | 2252.8 | .000868 | 94. | 1.1781 | .16457 | 2269.8 | .000872 |
| 96. | 1.1683 | .16170 | 2156.7 | .000863 | 96. | 1.1701 | .16234 | 2173.1 | .000866 |
| 98. | 1.1602 | .15945 | 2066.3 | .000857 | 98. | 1.1620 | .16011 | 2082.2 | .000861 |
| 100. | 1.1520 | .15721 | 1981.3 | .000851 | 100. | 1.1539 | .15788 | 1996.7 | .000855 |
| 102. | 1.1439 | .15497 | 1901.4 | .000845 | 102. | 1.1458 | .15565 | 1916.3 | .000849 |
| 104. | 1.1356 | .15272 | 1826.0 | .000839 | 104. | 1.1376 | .15342 | 1840.5 | .000842 |
| 106. | 1.1274 | .15048 | 1755.0 | .000832 | 106. | 1.1295 | .15120 | 1769.1 | .000836 |
| 108. | 1.1191 | .14824 | 1687.9 | .000825 | 108. | 1.1212 | .14897 | 1701.7 | .000830 |
| 110. | 1.1108 | .14599 | 1624.6 | .000818 | 110. | 1.1130 | .14674 | 1638.1 | .000823 |
| 112. | 1.1024 | .14375 | 1564.8 | .000811 | 112. | 1.1047 | .14451 | 1577.9 | .000816 |
| 114. | 1.0940 | .14151 | 1508.2 | .000804 | 114. | 1.0964 | .14229 | 1521.0 | .000809 |
| 116. | 1.0856 | .13927 | 1454.5 | .000797 | 116. | 1.0880 | .14006 | 1467.1 | .000801 |
| 118. | 1.0771 | .13704 | 1403.7 | .000789 | 118. | 1.0796 | .13783 | 1416.1 | .000794 |
| 120. | 1.0686 | .13481 | 1355.5 | .000781 | 120. | 1.0712 | .13563 | 1367.6 | .000786 |
| 122. | 1.0600 | .13258 | 1309.7 | .000773 | 122. | 1.0627 | .13342 | 1321.6 | .000779 |
| 124. | 1.0513 | .13036 | 1266.2 | .000765 | 124. | 1.0541 | .13122 | 1277.9 | .000771 |
| 126. | 1.0426 | .12815 | 1224.8 | .000757 | 126. | 1.0455 | .12903 | 1236.4 | .000763 |
| 128. | 1.0339 | .12595 | 1185.4 | .000749 | 128. | 1.0369 | .12685 | 1196.8 | .000755 |
| 130. | 1.0251 | .12376 | 1147.8 | .000741 | 130. | 1.0282 | .12467 | 1159.1 | .000747 |
| 132. | 1.0162 | .12159 | 1112.0 | .000732 | 132. | 1.0194 | .12251 | 1123.2 | .000739 |
| 134. | 1.0073 | .11942 | 1077.8 | .000724 | 134. | 1.0106 | .12037 | 1089.9 | .000730 |
| 136. | .9983 | .11727 | 1045.1 | .000715 | 136. | 1.0017 | .11823 | 1056.1 | .000722 |
| 138. | .9892 | .11514 | 1013.9 | .000707 | 138. | .9928 | .11612 | 1024.8 | .000714 |
| 140. | .9801 | .11302 | 984.0 | .000698 | 140. | .9838 | .11402 | 994.8 | .000705 |
| 142. | .9709 | .11093 | 955.4 | .000690 | 142. | .9747 | .11195 | 966.1 | .000697 |
| 144. | .9616 | .10885 | 928.0 | .000681 | 144. | .9656 | .10989 | 938.7 | .000689 |
| 146. | .9522 | .10681 | 901.7 | .000673 | 146. | .9564 | .10786 | 912.3 | .000680 |
| 148. | .9428 | .10479 | 876.5 | .000664 | 148. | .9471 | .10587 | 887.1 | .000672 |
| 150. | .9333 | .10282 | 852.3 | .000656 | 150. | .9378 | .10390 | 862.8 | .000664 |
| 152. | .9238 | .10088 | 829.0 | .000648 | 152. | .9284 | .10198 | 839.6 | .000657 |
| 154. | .9141 | .09901 | 806.6 | .000641 | 154. | .9190 | .10012 | 817.2 | .000649 |
| 156. | .9044 | .09709 | 785.2 | .000633 | 156. | .9094 | .09822 | 795.7 | .000641 |
| 158. | .8946 | .09517 | 764.5 | .000625 | 158. | .8998 | .09632 | 775.0 | .000634 |
| 160. | .8847 | .09328 | 744.6 | .000617 | 160. | .8902 | .09445 | 755.1 | .000626 |
| 165. | .8598 | .08873 | 698.0 | .000598 | 165. | .8658 | .08994 | 708.6 | .000608 |
| 170. | .8344 | .08442 | 655.6 | .000582 | 170. | .8410 | .08567 | 666.2 | .000591 |
| 175. | .8087 | .08036 | 617.0 | .000567 | 175. | .8159 | .08163 | 627.6 | .000577 |
| 180. | .7828 | .07657 | 581.7 | .000554 | 180. | .7907 | .07786 | 592.4 | .000564 |
| 185. | .7568 | .07305 | 549.6 | .000544 | 185. | .7653 | .07436 | 560.4 | .000554 |
| 190. | .7307 | .06981 | 520.5 | .000536 | 190. | .7400 | .07113 | 531.2 | .000547 |
| 195. | .7048 | .06686 | 494.0 | .000532 | 195. | .7148 | .06817 | 504.8 | .000542 |
| 200. | .6792 | .06419 | 470.1 | .000531 | 200. | .6899 | .06548 | 480.8 | .000540 |
| 210. | .6297 | .05961 | 429.3 | .000539 | 210. | .6415 | .06086 | 439.7 | .000547 |
| 220. | .5834 | .05592 | 396.9 | .000560 | 220. | .5961 | .05712 | 406.9 | .000565 |
| 230. | .5414 | .05294 | 371.7 | .000592 | 230. | .5545 | .05409 | 381.1 | .000594 |
| 240. | .5039 | .05053 | 352.5 | .000632 | 240. | .5172 | .05163 | 361.1 | .000631 |
| 250. | .4708 | .04858 | 337.9 | .000679 | 250. | .4840 | .04964 | 345.8 | .000675 |
| 260. | .4418 | .04702 | 327.0 | .000729 | 260. | .4547 | .04820 | 334.2 | .000723 |
| 270. | .4163 | .04578 | 318.9 | .000783 | 270. | .4288 | .04672 | 325.5 | .000773 |
| 280. | .3938 | .04481 | 313.0 | .000838 | 280. | .4059 | .04568 | 319.1 | .000826 |
| 290. | .3738 | .04406 | 308.8 | .000895 | 290. | .3855 | .04487 | 314.4 | .000880 |
| 300. | .3560 | .04350 | 305.9 | .000953 | 300. | .3673 | .04425 | 311.1 | .000935 |
| 310. | .3401 | .04317 | 304.1 | .001013 | 310. | .3510 | .04387 | 308.9 | .000993 |
| 320. | .3257 | .04321 | 303.2 | .001081 | 320. | .3362 | .04387 | 307.7 | .001058 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 29.0 MPa Isobar | | | | | 30.0 MPa Isobar | | | | |
|-----------------|---------|---------------|--------------|---------------------|-----------------|---------|---------------|--------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s | K | g/cm**3 | W/m.K | micro-g/cm.s | cm**2/s |
| * 57.619 | 1.3240 | .21055 | 5695.0 | .000963 | * 57.729 | 1.3245 | .21079 | 5721.6 | .000964 |
| 58. | 1.3224 | .20991 | 5638.7 | .000962 | 58. | 1.3234 | .21034 | 5681.2 | .000963 |
| 60. | 1.3143 | .20670 | 5350.2 | .000956 | 60. | 1.3153 | .20713 | 5349.6 | .000957 |
| 62. | 1.3063 | .20366 | 5073.8 | .000950 | 62. | 1.3073 | .20410 | 5110.7 | .000952 |
| 64. | 1.2983 | .20078 | 4810.6 | .000945 | 64. | 1.2994 | .20122 | 4845.1 | .000946 |
| 66. | 1.2904 | .19802 | 4560.7 | .000940 | 66. | 1.2915 | .19847 | 4573.2 | .000942 |
| 68. | 1.2825 | .19537 | 4324.4 | .000935 | 68. | 1.2836 | .19583 | 4355.0 | .000937 |
| 70. | 1.2746 | .19281 | 4101.5 | .000931 | 70. | 1.2758 | .19328 | 4130.5 | .000933 |
| 72. | 1.2667 | .19033 | 3891.7 | .000926 | 72. | 1.2679 | .19081 | 3919.1 | .000928 |
| 74. | 1.2589 | .18790 | 3694.5 | .000922 | 74. | 1.2601 | .18839 | 3720.5 | .000924 |
| 76. | 1.2510 | .18552 | 3509.4 | .000918 | 76. | 1.2523 | .18602 | 3534.1 | .000920 |
| 78. | 1.2431 | .18318 | 3335.8 | .000913 | 78. | 1.2444 | .18370 | 3359.3 | .000915 |
| 80. | 1.2353 | .18088 | 3173.1 | .000909 | 80. | 1.2366 | .18140 | 3195.5 | .000911 |
| 82. | 1.2274 | .17860 | 3020.6 | .000904 | 82. | 1.2288 | .17913 | 3042.0 | .000907 |
| 84. | 1.2195 | .17633 | 2877.7 | .000900 | 84. | 1.2209 | .17689 | 2898.2 | .000902 |
| 86. | 1.2116 | .17409 | 2743.8 | .000895 | 86. | 1.2131 | .17465 | 2763.5 | .000898 |
| 88. | 1.2037 | .17185 | 2618.3 | .000890 | 88. | 1.2052 | .17243 | 2637.2 | .000893 |
| 90. | 1.1957 | .16963 | 2500.6 | .000885 | 90. | 1.1973 | .17022 | 2518.8 | .000888 |
| 92. | 1.1878 | .16741 | 2390.3 | .000880 | 92. | 1.1894 | .16801 | 2407.8 | .000883 |
| 94. | 1.1798 | .16519 | 2286.7 | .000875 | 94. | 1.1815 | .16581 | 2303.6 | .000878 |
| 96. | 1.1718 | .16297 | 2189.4 | .000870 | 96. | 1.1735 | .16361 | 2205.7 | .000873 |
| 98. | 1.1638 | .16076 | 2098.0 | .000864 | 98. | 1.1656 | .16141 | 2113.8 | .000868 |
| 100. | 1.1558 | .15855 | 2012.1 | .000858 | 100. | 1.1576 | .15921 | 2027.3 | .000862 |
| 102. | 1.1477 | .15633 | 1931.2 | .000852 | 102. | 1.1496 | .15701 | 1946.0 | .000856 |
| 104. | 1.1396 | .15412 | 1855.0 | .000846 | 104. | 1.1416 | .15481 | 1869.4 | .000850 |
| 106. | 1.1315 | .15190 | 1783.2 | .000840 | 106. | 1.1335 | .15261 | 1797.2 | .000844 |
| 108. | 1.1233 | .14969 | 1715.4 | .000834 | 108. | 1.1254 | .15041 | 1729.0 | .000838 |
| 110. | 1.1152 | .14748 | 1651.4 | .000827 | 110. | 1.1173 | .14821 | 1664.7 | .000831 |
| 112. | 1.1069 | .14527 | 1591.0 | .000820 | 112. | 1.1092 | .14601 | 1604.0 | .000825 |
| 114. | 1.0987 | .14306 | 1533.8 | .000813 | 114. | 1.1010 | .14382 | 1546.5 | .000818 |
| 116. | 1.0904 | .14085 | 1479.6 | .000806 | 116. | 1.0928 | .14163 | 1492.1 | .000811 |
| 118. | 1.0821 | .13865 | 1428.3 | .000799 | 118. | 1.0845 | .13944 | 1440.5 | .000804 |
| 120. | 1.0737 | .13645 | 1379.7 | .000792 | 120. | 1.0762 | .13726 | 1391.6 | .000797 |
| 122. | 1.0653 | .13426 | 1333.5 | .000784 | 122. | 1.0679 | .13508 | 1345.2 | .000789 |
| 124. | 1.0569 | .13207 | 1289.6 | .000776 | 124. | 1.0596 | .13291 | 1301.1 | .000782 |
| 126. | 1.0484 | .12990 | 1247.8 | .000769 | 126. | 1.0511 | .13075 | 1259.2 | .000774 |
| 128. | 1.0398 | .12773 | 1208.1 | .000761 | 128. | 1.0427 | .12860 | 1219.3 | .000766 |
| 130. | 1.0312 | .12557 | 1170.3 | .000753 | 130. | 1.0342 | .12646 | 1181.3 | .000759 |
| 132. | 1.0226 | .12343 | 1134.2 | .000745 | 132. | 1.0257 | .12433 | 1145.1 | .000751 |
| 134. | 1.0139 | .12130 | 1099.8 | .000737 | 134. | 1.0171 | .12222 | 1110.6 | .000743 |
| 136. | 1.0051 | .11918 | 1066.9 | .000729 | 136. | 1.0084 | .12012 | 1077.6 | .000735 |
| 138. | .9963 | .11709 | 1035.5 | .000720 | 138. | .9997 | .11804 | 1046.1 | .000727 |
| 140. | .9874 | .11501 | 1005.5 | .000712 | 140. | .9910 | .11598 | 1016.0 | .000719 |
| 142. | .9785 | .11295 | 976.7 | .000704 | 142. | .9822 | .11393 | 987.2 | .000711 |
| 144. | .9695 | .11091 | 949.2 | .000696 | 144. | .9733 | .11191 | 959.6 | .000703 |
| 146. | .9605 | .10890 | 922.8 | .000688 | 146. | .9644 | .10992 | 933.1 | .000695 |
| 148. | .9513 | .10692 | 897.5 | .000680 | 148. | .9554 | .10795 | 907.8 | .000688 |
| 150. | .9422 | .10497 | 873.2 | .000672 | 150. | .9464 | .10602 | 883.4 | .000680 |
| 152. | .9329 | .10306 | 849.9 | .000665 | 152. | .9373 | .10412 | 860.1 | .000673 |
| 154. | .9237 | .10121 | 827.5 | .000657 | 154. | .9282 | .10228 | 837.7 | .000665 |
| 156. | .9143 | .09933 | 806.0 | .000650 | 156. | .9190 | .10041 | 816.1 | .000658 |
| 158. | .9049 | .09744 | 785.3 | .000642 | 158. | .9098 | .09854 | 795.4 | .000651 |
| 160. | .8954 | .09559 | 765.4 | .000635 | 160. | .9005 | .09671 | 775.5 | .000643 |
| 165. | .8715 | .09112 | 718.9 | .000617 | 165. | .8770 | .09228 | 729.0 | .000626 |
| 170. | .8473 | .08688 | 676.5 | .000601 | 170. | .8533 | .08807 | 686.6 | .000610 |
| 175. | .8228 | .08288 | 638.0 | .000587 | 175. | .8294 | .08409 | 648.1 | .000596 |
| 180. | .7982 | .07912 | 602.8 | .000574 | 180. | .8053 | .08036 | 612.9 | .000584 |
| 185. | .7735 | .07563 | 570.8 | .000564 | 185. | .7812 | .07688 | 580.9 | .000574 |
| 190. | .7488 | .07241 | 541.7 | .000557 | 190. | .7571 | .07366 | 551.8 | .000566 |
| 195. | .7242 | .06945 | 515.2 | .000552 | 195. | .7331 | .07069 | 525.2 | .000561 |
| 200. | .6999 | .06675 | 491.1 | .000550 | 200. | .7094 | .06799 | 501.2 | .000559 |
| 210. | .6527 | .06209 | 449.8 | .000554 | 210. | .6632 | .06329 | 459.6 | .000562 |
| 220. | .6081 | .05830 | 416.6 | .000570 | 220. | .6195 | .05946 | 426.0 | .000576 |
| 230. | .5670 | .05522 | 390.2 | .000597 | 230. | .5789 | .05633 | 399.1 | .000600 |
| 240. | .5299 | .05272 | 369.6 | .000632 | 240. | .5420 | .05378 | 377.9 | .000632 |
| 250. | .4967 | .05067 | 353.7 | .000672 | 250. | .5089 | .05168 | 361.4 | .000671 |
| 260. | .4672 | .04900 | 341.4 | .000717 | 260. | .4792 | .04996 | 348.6 | .000713 |
| 270. | .4410 | .04764 | 332.2 | .000765 | 270. | .4528 | .04855 | 338.7 | .000759 |
| 280. | .4177 | .04655 | 325.2 | .000816 | 280. | .4292 | .04741 | 331.3 | .000807 |
| 290. | .3970 | .04568 | 320.0 | .000867 | 290. | .4082 | .04649 | 325.7 | .000856 |
| 300. | .3784 | .04500 | 316.3 | .000920 | 300. | .3892 | .04576 | 321.6 | .000906 |
| 310. | .3617 | .04457 | 313.8 | .000975 | 310. | .3722 | .04527 | 318.6 | .000959 |
| 320. | .3466 | .04452 | 312.2 | .001038 | 320. | .3567 | .04518 | 316.7 | .001019 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 35.0 MPa Isobar | | | | | 40.0 MPa Isobar | | | | |
|-----------------|------------------------------|---------------------------|-------------------------------|--|-----------------|------------------------------|---------------------------|-------------------------------|--|
| Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s | Temp. K | Density g/cm ³ | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm ² /s |
| * 58.276 | 1.3274 | .21199 | 5852.2 | .000968 | * 58.819 | 1.3302 | .21318 | 5978.5 | .000971 |
| 60. | 1.3205 | .20925 | 5588.5 | .000963 | 60. | 1.3255 | .21133 | 5789.8 | .000969 |
| 62. | 1.3126 | .20625 | 5296.2 | .000959 | 62. | 1.3176 | .20835 | 5483.5 | .000965 |
| 64. | 1.3047 | .20340 | 5018.7 | .000954 | 64. | 1.3099 | .20554 | 5193.7 | .000961 |
| 66. | 1.2969 | .20069 | 4756.2 | .000950 | 66. | 1.3022 | .20287 | 4920.3 | .000957 |
| 68. | 1.2892 | .19810 | 4508.5 | .000946 | 68. | 1.2946 | .20031 | 4662.7 | .000954 |
| 70. | 1.2815 | .19559 | 4275.3 | .000942 | 70. | 1.2871 | .19786 | 4420.7 | .000951 |
| 72. | 1.2738 | .19317 | 4056.1 | .000938 | 72. | 1.2795 | .19548 | 4193.5 | .000947 |
| 74. | 1.2662 | .19080 | 3850.4 | .000934 | 74. | 1.2720 | .19316 | 3980.5 | .000944 |
| 76. | 1.2585 | .18849 | 3657.5 | .000931 | 76. | 1.2645 | .19090 | 3780.9 | .000941 |
| 78. | 1.2509 | .18622 | 3476.8 | .000927 | 78. | 1.2570 | .18869 | 3594.0 | .000938 |
| 80. | 1.2432 | .18399 | 3307.5 | .000923 | 80. | 1.2496 | .18651 | 3419.2 | .000934 |
| 82. | 1.2356 | .18178 | 3148.9 | .000919 | 82. | 1.2421 | .18436 | 3255.5 | .000931 |
| 84. | 1.2279 | .17959 | 3000.5 | .000915 | 84. | 1.2346 | .18223 | 3102.3 | .000927 |
| 86. | 1.2203 | .17742 | 2861.5 | .000911 | 86. | 1.2272 | .18012 | 2958.9 | .000924 |
| 88. | 1.2126 | .17527 | 2731.2 | .000907 | 88. | 1.2197 | .17802 | 2824.6 | .000920 |
| 90. | 1.2049 | .17312 | 2609.2 | .000903 | 90. | 1.2123 | .17593 | 2698.8 | .000916 |
| 92. | 1.1973 | .17097 | 2494.7 | .000898 | 92. | 1.2048 | .17384 | 2580.9 | .000912 |
| 94. | 1.1896 | .16883 | 2387.4 | .000894 | 94. | 1.1973 | .17177 | 2470.4 | .000908 |
| 96. | 1.1819 | .16670 | 2286.6 | .000889 | 96. | 1.1898 | .16969 | 2366.6 | .000904 |
| 98. | 1.1742 | .16456 | 2192.0 | .000884 | 98. | 1.1824 | .16762 | 2269.2 | .000900 |
| 100. | 1.1665 | .16243 | 2103.0 | .000879 | 100. | 1.1749 | .16554 | 2177.6 | .000895 |
| 102. | 1.1587 | .16030 | 2019.3 | .000874 | 102. | 1.1674 | .16347 | 2091.6 | .000891 |
| 104. | 1.1510 | .15817 | 1940.6 | .000869 | 104. | 1.1599 | .16140 | 2010.5 | .000886 |
| 106. | 1.1432 | .15603 | 1866.3 | .000863 | 106. | 1.1523 | .15933 | 1934.2 | .000881 |
| 108. | 1.1354 | .15390 | 1796.3 | .000857 | 108. | 1.1448 | .15726 | 1862.3 | .000876 |
| 110. | 1.1276 | .15177 | 1730.3 | .000852 | 110. | 1.1373 | .15519 | 1794.4 | .000870 |
| 112. | 1.1198 | .14964 | 1667.9 | .000846 | 112. | 1.1297 | .15312 | 1730.4 | .000865 |
| 114. | 1.1119 | .14752 | 1608.9 | .000840 | 114. | 1.1222 | .15106 | 1669.8 | .000859 |
| 116. | 1.1041 | .14540 | 1553.1 | .000833 | 116. | 1.1146 | .14900 | 1612.6 | .000854 |
| 118. | 1.0962 | .14328 | 1500.3 | .000827 | 118. | 1.1070 | .14694 | 1558.4 | .000848 |
| 120. | 1.0882 | .14117 | 1450.2 | .000820 | 120. | 1.0994 | .14489 | 1507.0 | .000842 |
| 122. | 1.0803 | .13906 | 1402.7 | .000814 | 122. | 1.0918 | .14284 | 1458.3 | .000836 |
| 124. | 1.0723 | .13696 | 1357.6 | .000807 | 124. | 1.0842 | .14081 | 1412.1 | .000830 |
| 126. | 1.0643 | .13487 | 1314.7 | .000800 | 126. | 1.0765 | .13878 | 1368.2 | .000824 |
| 128. | 1.0563 | .13279 | 1273.9 | .000793 | 128. | 1.0688 | .13676 | 1326.5 | .000818 |
| 130. | 1.0483 | .13073 | 1235.2 | .000786 | 130. | 1.0612 | .13475 | 1286.8 | .000811 |
| 132. | 1.0402 | .12867 | 1198.2 | .000779 | 132. | 1.0535 | .13276 | 1249.1 | .000805 |
| 134. | 1.0321 | .12663 | 1163.0 | .000772 | 134. | 1.0457 | .13078 | 1213.1 | .000798 |
| 136. | 1.0239 | .12460 | 1129.4 | .000765 | 136. | 1.0380 | .12881 | 1178.8 | .000792 |
| 138. | 1.0157 | .12260 | 1097.3 | .000758 | 138. | 1.0302 | .12686 | 1146.0 | .000785 |
| 140. | 1.0075 | .12060 | 1066.7 | .000751 | 140. | 1.0224 | .12493 | 1114.8 | .000779 |
| 142. | .9993 | .11863 | 1037.4 | .000744 | 142. | 1.0146 | .12302 | 1084.9 | .000772 |
| 144. | .9910 | .11668 | 1009.4 | .000736 | 144. | 1.0068 | .12113 | 1056.4 | .000765 |
| 146. | .9827 | .11476 | 982.5 | .000729 | 146. | .9990 | .11926 | 1029.1 | .000760 |
| 148. | .9743 | .11286 | 956.9 | .000722 | 148. | .9911 | .11741 | 1002.9 | .000753 |
| 150. | .9659 | .11099 | 932.2 | .000715 | 150. | .9832 | .11559 | 977.9 | .000747 |
| 152. | .9575 | .10915 | 908.6 | .000707 | 152. | .9753 | .11381 | 953.9 | .000741 |
| 154. | .9491 | .10736 | 885.9 | .000702 | 154. | .9674 | .11205 | 930.9 | .000735 |
| 156. | .9406 | .10555 | 864.2 | .000696 | 156. | .9595 | .11030 | 908.8 | .000729 |
| 158. | .9321 | .10375 | 843.3 | .000689 | 158. | .9515 | .10856 | 887.6 | .000723 |
| 160. | .9235 | .10199 | 823.2 | .000682 | 160. | .9436 | .10684 | 867.2 | .000717 |
| 165. | .9020 | .09771 | 776.3 | .000677 | 165. | .9236 | .10269 | 819.8 | .000702 |
| 170. | .8804 | .09364 | 733.8 | .000653 | 170. | .9035 | .09873 | 776.7 | .000689 |
| 175. | .8587 | .08978 | 695.0 | .000640 | 175. | .8835 | .09496 | 737.5 | .000677 |
| 180. | .8369 | .08613 | 659.8 | .000628 | 180. | .8634 | .09138 | 701.8 | .000666 |
| 185. | .8152 | .08271 | 627.6 | .000616 | 185. | .8433 | .08802 | 659.3 | .000657 |
| 190. | .7935 | .07952 | 598.2 | .000611 | 190. | .8234 | .08486 | 639.6 | .000649 |
| 195. | .7719 | .07656 | 571.5 | .000605 | 195. | .8036 | .08190 | 612.5 | .000643 |
| 200. | .7505 | .07382 | 547.1 | .000601 | 200. | .7840 | .07915 | 587.7 | .000638 |
| 210. | .7087 | .06899 | 504.6 | .000599 | 210. | .7455 | .07424 | 544.2 | .000635 |
| 220. | .6687 | .06496 | 469.5 | .000607 | 220. | .7084 | .07007 | 508.0 | .000637 |
| 230. | .6308 | .06162 | 440.7 | .000622 | 230. | .6730 | .06654 | 477.8 | .000647 |
| 240. | .5956 | .05884 | 417.2 | .000644 | 240. | .6396 | .06358 | 452.7 | .000653 |
| 250. | .5632 | .05633 | 398.2 | .000672 | 250. | .6084 | .06107 | 432.0 | .000683 |
| 260. | .5335 | .05459 | 382.9 | .000704 | 260. | .5794 | .05895 | 414.9 | .000708 |
| 270. | .5066 | .05296 | 370.7 | .000740 | 270. | .5526 | .05714 | 400.9 | .000736 |
| 280. | .4821 | .05159 | 361.0 | .000778 | 280. | .5280 | .05558 | 389.4 | .000767 |
| 290. | .4599 | .05044 | 353.4 | .000817 | 290. | .5053 | .05424 | 380.1 | .000799 |
| 300. | .4397 | .04948 | 347.4 | .000858 | 300. | .4845 | .05309 | 372.6 | .000833 |
| 310. | .4213 | .04876 | 342.9 | .000901 | 310. | .4653 | .05218 | 366.6 | .000868 |
| 320. | .4046 | .04846 | 339.4 | .000951 | 320. | .4477 | .05167 | 361.8 | .000909 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 45.0 MPa Isobar | | | | | 50.0 MPa Isobar | | | | |
|-----------------|-------------------|---------------|--------------|---------------------|-----------------|-------------------|---------------|--------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm ³ | W/m.K | micro-g/cm.s | cm ² /s | K | g/cm ³ | W/m.K | micro-g/cm.s | cm ² /s |
| * 59.35A | 1.3329 | .21437 | 6100.4 | .000975 | * 59.894 | 1.3355 | .21556 | 6218.1 | .000978 |
| 60. | 1.3303 | .21338 | 5993.5 | .000974 | 60. | 1.3351 | .21540 | 6199.6 | .000978 |
| 62. | 1.3226 | .21043 | 5672.7 | .000971 | 62. | 1.3274 | .21246 | 5863.7 | .000976 |
| 64. | 1.3149 | .20764 | 5370.2 | .000967 | 64. | 1.3199 | .20970 | 5548.0 | .000973 |
| 66. | 1.3074 | .20500 | 5085.4 | .000964 | 66. | 1.3124 | .20709 | 5251.6 | .000971 |
| 68. | 1.2999 | .20249 | 4817.7 | .000962 | 68. | 1.3050 | .20461 | 4973.5 | .000969 |
| 70. | 1.2924 | .20007 | 4566.6 | .000959 | 70. | 1.2977 | .20223 | 4713.0 | .000967 |
| 72. | 1.2850 | .19773 | 4331.1 | .000956 | 72. | 1.2904 | .19994 | 4469.2 | .000964 |
| 74. | 1.2777 | .19547 | 4110.6 | .000953 | 74. | 1.2832 | .19772 | 4241.0 | .000962 |
| 76. | 1.2703 | .19326 | 3904.3 | .000951 | 76. | 1.2759 | .19556 | 4027.7 | .000960 |
| 78. | 1.2630 | .19109 | 3711.2 | .000948 | 78. | 1.2688 | .19344 | 3828.3 | .000957 |
| 80. | 1.2557 | .18896 | 3530.6 | .000945 | 80. | 1.2616 | .19136 | 3641.8 | .000955 |
| 82. | 1.2484 | .18687 | 3361.7 | .000942 | 82. | 1.2544 | .18931 | 3467.6 | .000952 |
| 84. | 1.2411 | .18479 | 3203.7 | .000939 | 84. | 1.2473 | .18729 | 3304.6 | .000950 |
| 86. | 1.2338 | .18273 | 3055.8 | .000936 | 86. | 1.2402 | .18528 | 3152.3 | .000947 |
| 88. | 1.2265 | .18069 | 2917.4 | .000933 | 88. | 1.2331 | .18329 | 3009.7 | .000944 |
| 90. | 1.2192 | .17866 | 2787.8 | .000929 | 90. | 1.2260 | .18131 | 2876.2 | .000941 |
| 92. | 1.2120 | .17663 | 2666.4 | .000926 | 92. | 1.2189 | .17934 | 2751.2 | .000938 |
| 94. | 1.2047 | .17461 | 2552.5 | .000922 | 94. | 1.2118 | .17737 | 2634.0 | .000935 |
| 96. | 1.1974 | .17259 | 2445.7 | .000918 | 96. | 1.2047 | .17540 | 2524.1 | .000932 |
| 98. | 1.1901 | .17057 | 2345.5 | .000914 | 98. | 1.1976 | .17344 | 2421.0 | .000928 |
| 100. | 1.1829 | .16855 | 2251.3 | .000910 | 100. | 1.1905 | .17147 | 2324.1 | .000925 |
| 102. | 1.1756 | .16654 | 2162.8 | .000906 | 102. | 1.1834 | .16951 | 2233.1 | .000921 |
| 104. | 1.1683 | .16452 | 2079.5 | .000902 | 104. | 1.1763 | .16755 | 2147.5 | .000917 |
| 106. | 1.1610 | .16251 | 2001.0 | .000897 | 106. | 1.1693 | .16558 | 2066.9 | .000913 |
| 108. | 1.1537 | .16049 | 1927.1 | .000893 | 108. | 1.1622 | .16362 | 1990.9 | .000909 |
| 110. | 1.1464 | .15848 | 1857.4 | .000888 | 110. | 1.1551 | .16166 | 1919.3 | .000905 |
| 112. | 1.1391 | .15647 | 1791.6 | .000883 | 112. | 1.1480 | .15970 | 1851.7 | .000900 |
| 114. | 1.1318 | .15446 | 1729.4 | .000878 | 114. | 1.1409 | .15774 | 1787.9 | .000896 |
| 116. | 1.1245 | .15245 | 1670.6 | .000873 | 116. | 1.1339 | .15578 | 1727.6 | .000891 |
| 118. | 1.1172 | .15045 | 1615.0 | .000868 | 118. | 1.1268 | .15383 | 1670.5 | .000886 |
| 120. | 1.1099 | .14845 | 1562.3 | .000862 | 120. | 1.1197 | .15188 | 1616.4 | .000881 |
| 122. | 1.1025 | .14646 | 1512.4 | .000857 | 122. | 1.1126 | .14994 | 1565.2 | .000876 |
| 124. | 1.0952 | .14448 | 1465.1 | .000851 | 124. | 1.1055 | .14800 | 1516.7 | .000871 |
| 126. | 1.0878 | .14250 | 1420.1 | .000846 | 126. | 1.0984 | .14607 | 1470.6 | .000866 |
| 128. | 1.0805 | .14054 | 1377.4 | .000840 | 128. | 1.0913 | .14415 | 1426.8 | .000861 |
| 130. | 1.0731 | .13858 | 1336.7 | .000834 | 130. | 1.0842 | .14225 | 1385.2 | .000855 |
| 132. | 1.0657 | .13664 | 1298.1 | .000828 | 132. | 1.0771 | .14035 | 1345.6 | .000850 |
| 134. | 1.0583 | .13471 | 1261.3 | .000822 | 134. | 1.0700 | .13846 | 1307.9 | .000845 |
| 136. | 1.0509 | .13280 | 1226.2 | .000816 | 136. | 1.0629 | .13659 | 1272.0 | .000839 |
| 138. | 1.0435 | .13090 | 1192.7 | .000811 | 138. | 1.0558 | .13474 | 1237.8 | .000834 |
| 140. | 1.0361 | .12902 | 1160.8 | .000805 | 140. | 1.0487 | .13290 | 1205.1 | .000828 |
| 142. | 1.0287 | .12715 | 1130.3 | .000799 | 142. | 1.0416 | .13108 | 1173.9 | .000823 |
| 144. | 1.0212 | .12531 | 1101.2 | .000793 | 144. | 1.0345 | .12927 | 1144.1 | .000817 |
| 146. | 1.0138 | .12349 | 1073.3 | .000787 | 146. | 1.0274 | .12749 | 1115.7 | .000812 |
| 148. | 1.0063 | .12169 | 1046.6 | .000781 | 148. | 1.0202 | .12573 | 1088.4 | .000806 |
| 150. | .9988 | .11991 | 1021.1 | .000775 | 150. | 1.0131 | .12399 | 1062.4 | .000801 |
| 152. | .9914 | .11816 | 996.7 | .000769 | 152. | 1.0060 | .12227 | 1037.4 | .000795 |
| 154. | .9839 | .11644 | 973.2 | .000764 | 154. | .9988 | .12059 | 1013.5 | .000790 |
| 156. | .9764 | .11473 | 950.7 | .000758 | 156. | .9917 | .11891 | 990.6 | .000785 |
| 158. | .9689 | .11303 | 929.2 | .000753 | 158. | .9846 | .11725 | 968.6 | .000780 |
| 160. | .9614 | .11137 | 908.5 | .000747 | 160. | .9774 | .11562 | 947.5 | .000775 |
| 165. | .9426 | .10731 | 860.2 | .000734 | 165. | .9596 | .11164 | 898.3 | .000763 |
| 170. | .9238 | .10343 | 815.4 | .000722 | 170. | .9418 | .10784 | 853.7 | .000751 |
| 175. | .9050 | .09974 | 776.7 | .000710 | 175. | .9241 | .10420 | 813.2 | .000740 |
| 180. | .8862 | .09622 | 740.4 | .000700 | 180. | .9064 | .10074 | 776.4 | .000731 |
| 185. | .8675 | .09290 | 707.4 | .000691 | 185. | .8888 | .09746 | 742.8 | .000722 |
| 190. | .8489 | .08977 | 677.2 | .000684 | 190. | .8713 | .09435 | 712.0 | .000714 |
| 195. | .8305 | .08683 | 649.6 | .000677 | 195. | .8539 | .09142 | 683.9 | .000708 |
| 200. | .8122 | .08408 | 624.4 | .000672 | 200. | .8367 | .08867 | 658.1 | .000703 |
| 210. | .7764 | .07912 | 580.0 | .000667 | 210. | .8030 | .08367 | 612.8 | .000696 |
| 220. | .7415 | .07484 | 542.7 | .000667 | 220. | .7702 | .07932 | 574.6 | .000695 |
| 230. | .7083 | .07117 | 511.4 | .000673 | 230. | .7387 | .07554 | 542.2 | .000698 |
| 240. | .6766 | .06805 | 485.1 | .000684 | 240. | .7085 | .07228 | 514.8 | .000706 |
| 250. | .6467 | .06537 | 463.0 | .000699 | 250. | .6798 | .06946 | 491.6 | .000718 |
| 260. | .6186 | .06308 | 444.5 | .000719 | 260. | .6526 | .06702 | 472.0 | .000733 |
| 270. | .5923 | .06110 | 429.1 | .000741 | 270. | .6271 | .06489 | 455.4 | .000751 |
| 280. | .5679 | .05939 | 416.2 | .000766 | 280. | .6031 | .06303 | 441.4 | .000771 |
| 290. | .5453 | .05789 | 405.6 | .000793 | 290. | .5806 | .06139 | 429.6 | .000793 |
| 300. | .5242 | .05658 | 396.7 | .000820 | 300. | .5596 | .05994 | 419.7 | .000816 |
| 310. | .5047 | .05551 | 389.4 | .000850 | 310. | .5400 | .05871 | 411.4 | .000841 |
| 320. | .4866 | .05480 | 383.5 | .000885 | 320. | .5217 | .05783 | 404.4 | .000870 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 55.0 MPa Isobar | | | | | 60.0 MPa Isobar | | | | |
|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 60.425 | 1.3381 | .21675 | 6331.5 | .000981 | * 60.954 | 1.3407 | .21793 | 6440.8 | .000984 |
| 62. | 1.3321 | .21446 | 6056.7 | .000980 | 62. | 1.3367 | .21643 | 6251.5 | .000984 |
| 64. | 1.3246 | .21173 | 5727.3 | .000979 | 64. | 1.3293 | .21372 | 5908.1 | .000984 |
| 66. | 1.3173 | .20915 | 5418.8 | .000977 | 66. | 1.3220 | .21116 | 5587.2 | .000983 |
| 68. | 1.3100 | .20670 | 5130.1 | .000975 | 68. | 1.3148 | .20875 | 5287.5 | .000982 |
| 70. | 1.3028 | .20436 | 4860.0 | .000974 | 70. | 1.3077 | .20644 | 5007.6 | .000981 |
| 72. | 1.2956 | .20210 | 4607.5 | .000972 | 72. | 1.3006 | .20422 | 4746.3 | .000979 |
| 74. | 1.2885 | .19992 | 4371.6 | .000970 | 74. | 1.2936 | .20208 | 4502.4 | .000978 |
| 76. | 1.2814 | .19780 | 4151.2 | .000968 | 76. | 1.2867 | .20000 | 4274.7 | .000977 |
| 78. | 1.2743 | .19573 | 3945.3 | .000967 | 78. | 1.2797 | .19798 | 4062.2 | .000975 |
| 80. | 1.2673 | .19370 | 3752.9 | .000965 | 80. | 1.2728 | .19599 | 3863.9 | .000974 |
| 82. | 1.2603 | .19170 | 3573.2 | .000963 | 82. | 1.2660 | .19404 | 3678.7 | .000972 |
| 84. | 1.2533 | .18973 | 3405.3 | .000960 | 84. | 1.2591 | .19211 | 3505.7 | .000970 |
| 86. | 1.2463 | .18777 | 3248.3 | .000958 | 86. | 1.2523 | .19020 | 3344.0 | .000968 |
| 88. | 1.2394 | .18583 | 3101.5 | .000956 | 88. | 1.2455 | .18830 | 3192.9 | .000966 |
| 90. | 1.2324 | .18390 | 2964.1 | .000953 | 90. | 1.2387 | .18642 | 3051.5 | .000964 |
| 92. | 1.2255 | .18197 | 2835.4 | .000950 | 92. | 1.2319 | .18454 | 2919.1 | .000962 |
| 94. | 1.2185 | .18005 | 2714.9 | .000948 | 94. | 1.2251 | .18267 | 2795.2 | .000960 |
| 96. | 1.2116 | .17814 | 2601.8 | .000945 | 96. | 1.2183 | .18080 | 2679.0 | .000957 |
| 98. | 1.2047 | .17622 | 2495.8 | .000942 | 98. | 1.2116 | .17894 | 2570.0 | .000954 |
| 100. | 1.1978 | .17431 | 2396.2 | .000938 | 100. | 1.2048 | .17707 | 2467.6 | .000951 |
| 102. | 1.1909 | .17240 | 2302.7 | .000935 | 102. | 1.1981 | .17520 | 2371.5 | .000949 |
| 104. | 1.1840 | .17048 | 2214.7 | .000932 | 104. | 1.1914 | .17333 | 2281.1 | .000945 |
| 106. | 1.1771 | .16857 | 2131.8 | .000928 | 106. | 1.1847 | .17146 | 2196.0 | .000942 |
| 108. | 1.1702 | .16665 | 2053.8 | .000924 | 108. | 1.1779 | .16959 | 2115.9 | .000939 |
| 110. | 1.1634 | .16474 | 1980.3 | .000920 | 110. | 1.1712 | .16772 | 2040.4 | .000935 |
| 112. | 1.1565 | .16282 | 1910.9 | .000916 | 112. | 1.1645 | .16585 | 1969.2 | .000931 |
| 114. | 1.1496 | .16091 | 1845.4 | .000912 | 114. | 1.1579 | .16398 | 1901.9 | .000928 |
| 116. | 1.1427 | .15900 | 1783.4 | .000908 | 116. | 1.1512 | .16211 | 1838.4 | .000924 |
| 118. | 1.1359 | .15709 | 1724.9 | .000903 | 118. | 1.1445 | .16024 | 1778.3 | .000920 |
| 120. | 1.1290 | .15518 | 1669.4 | .000899 | 120. | 1.1378 | .15838 | 1721.4 | .000916 |
| 122. | 1.1221 | .15328 | 1616.9 | .000894 | 122. | 1.1312 | .15652 | 1667.6 | .000911 |
| 124. | 1.1153 | .15139 | 1567.1 | .000890 | 124. | 1.1245 | .15467 | 1616.5 | .000907 |
| 126. | 1.1084 | .14951 | 1519.8 | .000885 | 126. | 1.1178 | .15282 | 1568.1 | .000903 |
| 128. | 1.1016 | .14763 | 1475.0 | .000880 | 128. | 1.1112 | .15098 | 1522.1 | .000898 |
| 130. | 1.0947 | .14576 | 1432.3 | .000875 | 130. | 1.1046 | .14915 | 1478.4 | .000894 |
| 132. | 1.0878 | .14391 | 1391.8 | .000870 | 132. | 1.0979 | .14733 | 1436.8 | .000889 |
| 134. | 1.0810 | .14206 | 1353.2 | .000865 | 134. | 1.0913 | .14552 | 1397.3 | .000884 |
| 136. | 1.0741 | .14023 | 1316.4 | .000860 | 136. | 1.0847 | .14372 | 1359.6 | .000880 |
| 138. | 1.0673 | .13841 | 1281.4 | .000855 | 138. | 1.0781 | .14194 | 1323.8 | .000875 |
| 140. | 1.0604 | .13661 | 1247.9 | .000850 | 140. | 1.0714 | .14017 | 1289.6 | .000870 |
| 142. | 1.0536 | .13482 | 1216.1 | .000845 | 142. | 1.0648 | .13842 | 1256.9 | .000866 |
| 144. | 1.0468 | .13306 | 1185.6 | .000840 | 144. | 1.0582 | .13668 | 1225.7 | .000861 |
| 146. | 1.0399 | .13131 | 1156.5 | .000835 | 146. | 1.0516 | .13496 | 1196.0 | .000856 |
| 148. | 1.0331 | .12958 | 1128.6 | .000830 | 148. | 1.0451 | .13326 | 1167.5 | .000851 |
| 150. | 1.0263 | .12787 | 1102.0 | .000825 | 150. | 1.0385 | .13158 | 1140.3 | .000847 |
| 152. | 1.0194 | .12618 | 1076.5 | .000820 | 152. | 1.0319 | .12992 | 1114.2 | .000842 |
| 154. | 1.0126 | .12453 | 1052.1 | .000815 | 154. | 1.0253 | .12829 | 1089.2 | .000837 |
| 156. | 1.0058 | .12288 | 1028.7 | .000810 | 156. | 1.0188 | .12666 | 1065.3 | .000833 |
| 158. | .9990 | .12125 | 1006.2 | .000805 | 158. | 1.0122 | .12506 | 1042.4 | .000828 |
| 160. | .9921 | .11964 | 984.7 | .000800 | 160. | 1.0057 | .12348 | 1020.4 | .000824 |
| 165. | .9751 | .11574 | 934.5 | .000789 | 165. | .9894 | .11963 | 969.1 | .000813 |
| 170. | .9582 | .11199 | 889.0 | .000778 | 170. | .9732 | .11593 | 922.7 | .000802 |
| 175. | .9413 | .10840 | 847.8 | .000768 | 175. | .9570 | .11239 | 880.6 | .000793 |
| 180. | .9245 | .10498 | 810.2 | .000758 | 180. | .9409 | .10901 | 842.2 | .000784 |
| 185. | .9078 | .10173 | 775.9 | .000750 | 185. | .9250 | .10578 | 807.3 | .000776 |
| 190. | .8912 | .09865 | 744.6 | .000743 | 190. | .9091 | .10272 | 775.3 | .000769 |
| 195. | .8747 | .09574 | 715.9 | .000736 | 195. | .8935 | .09982 | 746.0 | .000762 |
| 200. | .8584 | .09299 | 689.6 | .000731 | 200. | .8779 | .09707 | 719.2 | .000757 |
| 210. | .8264 | .08797 | 643.3 | .000724 | 210. | .8474 | .09203 | 671.8 | .000749 |
| 220. | .7953 | .08355 | 604.0 | .000721 | 220. | .8177 | .08756 | 631.6 | .000745 |
| 230. | .7653 | .07968 | 570.7 | .000722 | 230. | .7889 | .08362 | 597.4 | .000745 |
| 240. | .7364 | .07631 | 542.4 | .000728 | 240. | .7613 | .08015 | 568.2 | .000749 |
| 250. | .7088 | .07336 | 518.2 | .000736 | 250. | .7347 | .07709 | 543.1 | .000755 |
| 260. | .6826 | .07078 | 497.6 | .000748 | 260. | .7093 | .07439 | 521.7 | .000764 |
| 270. | .6578 | .06852 | 480.1 | .000763 | 270. | .6852 | .07200 | 503.2 | .000776 |
| 280. | .6343 | .06652 | 465.1 | .000779 | 280. | .6623 | .06987 | 487.4 | .000790 |
| 290. | .6122 | .06475 | 452.3 | .000798 | 290. | .6406 | .06797 | 473.8 | .000805 |
| 300. | .5914 | .06316 | 441.5 | .000817 | 300. | .6201 | .06627 | 462.2 | .000821 |
| 310. | .5718 | .06180 | 432.2 | .000838 | 310. | .6007 | .06477 | 452.1 | .000839 |
| 320. | .5535 | .06075 | 424.4 | .000862 | 320. | .5824 | .06356 | 443.6 | .000859 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 65.0 MPa Isobar | | | | | 70.0 MPa Isobar | | | | |
|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- g/cm.s | Thermal Diffusivity cm**2/s |
| * 61.478 | 1.3432 | .21911 | 6545.9 | .000988 | * 62.000 | 1.3456 | .22028 | 6647.1 | .000991 |
| 62. | 1.3412 | .21837 | 6448.3 | .000988 | 62. | 1.3456 | .22028 | 6647.1 | .000991 |
| 64. | 1.3339 | .21567 | 6090.3 | .000988 | 64. | 1.3383 | .21760 | 6274.1 | .000992 |
| 66. | 1.3266 | .21315 | 5756.7 | .000988 | 66. | 1.3312 | .21509 | 5927.3 | .000992 |
| 68. | 1.3195 | .21076 | 5445.7 | .000987 | 68. | 1.3241 | .21273 | 5604.8 | .000993 |
| 70. | 1.3125 | .20848 | 5155.8 | .000987 | 70. | 1.3172 | .21049 | 5304.6 | .000993 |
| 72. | 1.3055 | .20630 | 4885.4 | .000986 | 72. | 1.3103 | .20834 | 5025.0 | .000993 |
| 74. | 1.2986 | .20420 | 4633.4 | .000986 | 74. | 1.3035 | .20627 | 4764.7 | .000992 |
| 76. | 1.2918 | .20217 | 4398.4 | .000985 | 76. | 1.2968 | .20427 | 4522.2 | .000992 |
| 78. | 1.2850 | .20017 | 4179.2 | .000984 | 78. | 1.2901 | .20233 | 4296.2 | .000992 |
| 80. | 1.2782 | .19823 | 3974.7 | .000983 | 80. | 1.2834 | .20042 | 4085.5 | .000991 |
| 82. | 1.2714 | .19632 | 3783.9 | .000981 | 82. | 1.2768 | .19856 | 3889.0 | .000990 |
| 84. | 1.2647 | .19444 | 3605.8 | .000980 | 84. | 1.2702 | .19671 | 3705.6 | .000989 |
| 86. | 1.2580 | .19257 | 3439.4 | .000978 | 86. | 1.2636 | .19489 | 3534.4 | .000988 |
| 88. | 1.2513 | .19072 | 3283.9 | .000977 | 88. | 1.2570 | .19309 | 3374.5 | .000987 |
| 90. | 1.2447 | .18888 | 3138.4 | .000975 | 90. | 1.2505 | .19129 | 3225.0 | .000985 |
| 92. | 1.2380 | .18705 | 3002.4 | .000973 | 92. | 1.2440 | .18950 | 3085.2 | .000984 |
| 94. | 1.2314 | .18523 | 2874.9 | .000971 | 94. | 1.2375 | .18772 | 2954.2 | .000982 |
| 96. | 1.2248 | .18340 | 2755.5 | .000969 | 96. | 1.2310 | .18594 | 2831.6 | .000980 |
| 98. | 1.2182 | .18158 | 2643.5 | .000966 | 98. | 1.2245 | .18416 | 2716.6 | .000978 |
| 100. | 1.2116 | .17976 | 2538.4 | .000964 | 100. | 1.2181 | .18238 | 2608.6 | .000976 |
| 102. | 1.2050 | .17793 | 2439.7 | .000961 | 102. | 1.2117 | .18060 | 2507.3 | .000974 |
| 104. | 1.1984 | .17611 | 2346.9 | .000959 | 104. | 1.2052 | .17881 | 2412.0 | .000971 |
| 106. | 1.1919 | .17428 | 2259.5 | .000956 | 106. | 1.1988 | .17703 | 2322.4 | .000968 |
| 108. | 1.1853 | .17245 | 2177.3 | .000953 | 108. | 1.1924 | .17524 | 2238.0 | .000966 |
| 110. | 1.1788 | .17062 | 2099.8 | .000949 | 110. | 1.1860 | .17345 | 2158.5 | .000963 |
| 112. | 1.1723 | .16879 | 2026.7 | .000946 | 112. | 1.1797 | .17165 | 2083.6 | .000960 |
| 114. | 1.1657 | .16696 | 1957.7 | .000943 | 114. | 1.1733 | .16986 | 2012.8 | .000957 |
| 116. | 1.1592 | .16513 | 1892.5 | .000939 | 116. | 1.1669 | .16807 | 1946.0 | .000953 |
| 118. | 1.1527 | .16330 | 1830.9 | .000935 | 118. | 1.1606 | .16628 | 1882.8 | .000950 |
| 120. | 1.1462 | .16148 | 1772.6 | .000932 | 120. | 1.1543 | .16449 | 1823.0 | .000947 |
| 122. | 1.1397 | .15966 | 1717.4 | .000928 | 122. | 1.1479 | .16270 | 1766.4 | .000943 |
| 124. | 1.1333 | .15784 | 1665.0 | .000924 | 124. | 1.1416 | .16092 | 1712.7 | .000939 |
| 126. | 1.1268 | .15603 | 1615.4 | .000920 | 126. | 1.1353 | .15914 | 1661.8 | .000936 |
| 128. | 1.1204 | .15422 | 1568.2 | .000915 | 128. | 1.1291 | .15736 | 1613.6 | .000932 |
| 130. | 1.1139 | .15243 | 1523.5 | .000911 | 130. | 1.1228 | .15560 | 1567.7 | .000928 |
| 132. | 1.1075 | .15064 | 1480.9 | .000907 | 132. | 1.1165 | .15384 | 1524.1 | .000924 |
| 134. | 1.1010 | .14886 | 1440.4 | .000903 | 134. | 1.1103 | .15209 | 1482.6 | .000920 |
| 136. | 1.0946 | .14710 | 1401.8 | .000898 | 136. | 1.1040 | .15036 | 1443.1 | .000916 |
| 138. | 1.0882 | .14534 | 1365.1 | .000894 | 138. | 1.0978 | .14863 | 1405.5 | .000912 |
| 140. | 1.0818 | .14360 | 1330.1 | .000889 | 140. | 1.0916 | .14692 | 1369.7 | .000907 |
| 142. | 1.0754 | .14188 | 1296.7 | .000885 | 142. | 1.0854 | .14522 | 1335.5 | .000903 |
| 144. | 1.0690 | .14017 | 1264.8 | .000880 | 144. | 1.0792 | .14354 | 1302.9 | .000899 |
| 146. | 1.0626 | .13848 | 1234.3 | .000876 | 146. | 1.0730 | .14187 | 1271.7 | .000895 |
| 148. | 1.0563 | .13680 | 1205.2 | .000872 | 148. | 1.0668 | .14022 | 1241.9 | .000891 |
| 150. | 1.0499 | .13514 | 1177.3 | .000867 | 150. | 1.0607 | .13858 | 1213.4 | .000886 |
| 152. | 1.0436 | .13351 | 1150.7 | .000863 | 152. | 1.0545 | .13697 | 1186.1 | .000882 |
| 154. | 1.0372 | .13190 | 1125.2 | .000858 | 154. | 1.0484 | .13537 | 1160.0 | .000878 |
| 156. | 1.0309 | .13030 | 1100.7 | .000854 | 156. | 1.0423 | .13379 | 1135.0 | .000874 |
| 158. | 1.0246 | .12872 | 1077.2 | .000850 | 158. | 1.0362 | .13223 | 1111.0 | .000870 |
| 160. | 1.0183 | .12716 | 1054.8 | .000846 | 160. | 1.0301 | .13069 | 1088.0 | .000866 |
| 165. | 1.0026 | .12336 | 1002.4 | .000835 | 165. | 1.0149 | .12693 | 1034.5 | .000856 |
| 170. | .9870 | .11970 | 955.0 | .000825 | 170. | .9999 | .12332 | 986.1 | .000847 |
| 175. | .9715 | .11619 | 912.0 | .000816 | 175. | .9849 | .11984 | 942.2 | .000838 |
| 180. | .9560 | .11284 | 872.9 | .000808 | 180. | .9700 | .11651 | 902.2 | .000830 |
| 185. | .9407 | .10964 | 837.2 | .000800 | 185. | .9553 | .11333 | 865.8 | .000822 |
| 190. | .9256 | .10659 | 804.5 | .000793 | 190. | .9407 | .11030 | 832.4 | .000815 |
| 195. | .9105 | .10370 | 774.6 | .000786 | 195. | .9262 | .10741 | 801.9 | .000809 |
| 200. | .8956 | .10095 | 747.2 | .000781 | 200. | .9119 | .10467 | 773.9 | .000804 |
| 210. | .8664 | .09590 | 698.8 | .000773 | 210. | .8837 | .09959 | 724.4 | .000795 |
| 220. | .8379 | .09139 | 657.6 | .000768 | 220. | .8563 | .09505 | 682.3 | .000790 |
| 230. | .8103 | .08738 | 622.5 | .000767 | 230. | .8297 | .09098 | 646.3 | .000788 |
| 240. | .7836 | .08382 | 592.4 | .000769 | 240. | .8040 | .08734 | 615.4 | .000788 |
| 250. | .7580 | .08066 | 566.6 | .000773 | 250. | .7792 | .08409 | 588.7 | .000791 |
| 260. | .7334 | .07785 | 544.3 | .000781 | 260. | .7554 | .08118 | 565.7 | .000797 |
| 270. | .7100 | .07534 | 525.1 | .000790 | 270. | .7325 | .07856 | 545.8 | .000804 |
| 280. | .6876 | .07310 | 508.5 | .000801 | 280. | .7107 | .07620 | 528.6 | .000813 |
| 290. | .6664 | .07108 | 494.2 | .000813 | 290. | .6899 | .07407 | 513.6 | .000823 |
| 300. | .6462 | .06925 | 481.8 | .000827 | 300. | .6701 | .07213 | 500.5 | .000834 |
| 310. | .6270 | .06763 | 471.1 | .000842 | 310. | .6512 | .07039 | 489.2 | .000847 |
| 320. | .6089 | .06628 | 461.9 | .000859 | 320. | .6332 | .06890 | 479.4 | .000861 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 75.0 MPa Isobar | | | | | 80.0 MPa Isobar | | | | |
|-----------------|-------------------|---------------|-----------|---------------------|-----------------|-------------------|---------------|-----------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm ³ | W/m.K | g/cm.s | cm ² /s | K | g/cm ³ | W/m.K | g/cm.s | cm ² /s |
| * 62.518 | 1.3480 | .22146 | 6744.5 | .000994 | * 63.032 | 1.3504 | .22263 | 6838.0 | .000997 |
| 64. | 1.3427 | .21950 | 6459.4 | .000995 | 64. | 1.3469 | .22137 | 6646.3 | .000998 |
| 66. | 1.3356 | .21701 | 6099.2 | .000997 | 66. | 1.3399 | .21890 | 6272.2 | .001000 |
| 68. | 1.3286 | .21467 | 5764.8 | .000998 | 68. | 1.3330 | .21659 | 5925.6 | .001002 |
| 70. | 1.3217 | .21246 | 5454.0 | .000998 | 70. | 1.3262 | .21440 | 5604.1 | .001004 |
| 72. | 1.3150 | .21034 | 5165.1 | .000999 | 72. | 1.3195 | .21231 | 5305.6 | .001005 |
| 74. | 1.3083 | .20831 | 4896.3 | .000999 | 74. | 1.3129 | .21031 | 5028.2 | .001005 |
| 76. | 1.3016 | .20635 | 4646.1 | .000999 | 76. | 1.3063 | .20838 | 4770.2 | .001006 |
| 78. | 1.2950 | .20444 | 4413.2 | .000999 | 78. | 1.2998 | .20651 | 4530.3 | .001006 |
| 80. | 1.2884 | .20258 | 4196.2 | .000999 | 80. | 1.2934 | .20468 | 4306.9 | .001006 |
| 82. | 1.2819 | .20075 | 3993.9 | .000998 | 82. | 1.2869 | .20289 | 4098.8 | .001006 |
| 84. | 1.2754 | .19894 | 3805.3 | .000998 | 84. | 1.2806 | .20113 | 3904.8 | .001006 |
| 86. | 1.2690 | .19716 | 3629.2 | .000997 | 86. | 1.2742 | .19939 | 3723.8 | .001006 |
| 88. | 1.2625 | .19540 | 3464.9 | .000996 | 88. | 1.2679 | .19767 | 3554.9 | .001005 |
| 90. | 1.2561 | .19365 | 3311.2 | .000995 | 90. | 1.2616 | .19595 | 3397.1 | .001004 |
| 92. | 1.2497 | .19190 | 3167.6 | .000994 | 92. | 1.2553 | .19425 | 3249.6 | .001004 |
| 94. | 1.2434 | .19016 | 3033.1 | .000992 | 94. | 1.2491 | .19254 | 3111.6 | .001002 |
| 96. | 1.2370 | .18842 | 2907.2 | .000991 | 96. | 1.2428 | .19084 | 2982.3 | .001001 |
| 98. | 1.2307 | .18668 | 2789.1 | .000989 | 98. | 1.2366 | .18914 | 2861.2 | .001000 |
| 100. | 1.2244 | .18494 | 2678.3 | .000987 | 100. | 1.2304 | .18744 | 2747.6 | .000998 |
| 102. | 1.2181 | .18320 | 2574.3 | .000985 | 102. | 1.2242 | .18574 | 2640.9 | .000997 |
| 104. | 1.2118 | .18145 | 2476.6 | .000983 | 104. | 1.2181 | .18403 | 2540.7 | .000995 |
| 106. | 1.2055 | .17970 | 2384.7 | .000981 | 106. | 1.2119 | .18232 | 2446.4 | .000993 |
| 108. | 1.1992 | .17795 | 2298.2 | .000978 | 108. | 1.2058 | .18061 | 2357.7 | .000991 |
| 110. | 1.1930 | .17620 | 2216.6 | .000976 | 110. | 1.1997 | .17889 | 2274.2 | .000988 |
| 112. | 1.1868 | .17445 | 2139.8 | .000973 | 112. | 1.1936 | .17717 | 2195.4 | .000986 |
| 114. | 1.1805 | .17269 | 2067.2 | .000970 | 114. | 1.1875 | .17545 | 2121.0 | .000983 |
| 116. | 1.1743 | .17093 | 1998.7 | .000967 | 116. | 1.1814 | .17372 | 2050.8 | .000981 |
| 118. | 1.1681 | .16917 | 1933.9 | .000964 | 118. | 1.1754 | .17200 | 1984.5 | .000978 |
| 120. | 1.1620 | .16742 | 1872.7 | .000961 | 120. | 1.1693 | .17027 | 1921.7 | .000975 |
| 122. | 1.1558 | .16566 | 1814.7 | .000958 | 122. | 1.1633 | .16855 | 1862.3 | .000972 |
| 124. | 1.1496 | .16391 | 1759.7 | .000954 | 124. | 1.1573 | .16683 | 1806.0 | .000969 |
| 126. | 1.1435 | .16216 | 1707.6 | .000951 | 126. | 1.1513 | .16511 | 1752.7 | .000965 |
| 128. | 1.1374 | .16042 | 1658.1 | .000947 | 128. | 1.1453 | .16339 | 1702.0 | .000962 |
| 130. | 1.1313 | .15868 | 1611.2 | .000944 | 130. | 1.1394 | .16168 | 1653.9 | .000959 |
| 132. | 1.1252 | .15695 | 1566.5 | .000940 | 132. | 1.1334 | .15998 | 1608.2 | .000955 |
| 134. | 1.1191 | .15523 | 1524.0 | .000936 | 134. | 1.1275 | .15828 | 1564.8 | .000952 |
| 136. | 1.1130 | .15352 | 1483.6 | .000932 | 136. | 1.1216 | .15660 | 1523.4 | .000948 |
| 138. | 1.1069 | .15182 | 1445.1 | .000928 | 138. | 1.1157 | .15492 | 1484.0 | .000944 |
| 140. | 1.1009 | .15013 | 1408.4 | .000924 | 140. | 1.1098 | .15326 | 1446.5 | .000941 |
| 142. | 1.0949 | .14846 | 1373.5 | .000921 | 142. | 1.1039 | .15160 | 1410.7 | .000937 |
| 144. | 1.0888 | .14680 | 1340.1 | .000917 | 144. | 1.0980 | .14996 | 1376.5 | .000933 |
| 146. | 1.0828 | .14515 | 1308.2 | .000913 | 146. | 1.0922 | .14833 | 1343.9 | .000930 |
| 148. | 1.0768 | .14352 | 1277.7 | .000909 | 148. | 1.0863 | .14672 | 1312.7 | .000926 |
| 150. | 1.0709 | .14190 | 1248.5 | .000905 | 150. | 1.0805 | .14513 | 1282.9 | .000922 |
| 152. | 1.0649 | .14031 | 1220.7 | .000901 | 152. | 1.0747 | .14355 | 1254.4 | .000918 |
| 154. | 1.0590 | .13873 | 1194.0 | .000897 | 154. | 1.0689 | .14199 | 1227.1 | .000915 |
| 156. | 1.0530 | .13717 | 1168.4 | .000893 | 156. | 1.0632 | .14044 | 1200.9 | .000911 |
| 158. | 1.0471 | .13563 | 1143.9 | .000889 | 158. | 1.0574 | .13891 | 1175.9 | .000907 |
| 160. | 1.0412 | .13410 | 1120.4 | .000885 | 160. | 1.0517 | .13740 | 1151.9 | .000904 |
| 165. | 1.0265 | .13038 | 1065.7 | .000876 | 165. | 1.0374 | .13372 | 1096.0 | .000895 |
| 170. | 1.0119 | .12680 | 1016.2 | .000867 | 170. | 1.0233 | .13016 | 1045.4 | .000886 |
| 175. | .9974 | .12335 | 971.3 | .000858 | 175. | 1.0092 | .12673 | 999.6 | .000878 |
| 180. | .9831 | .12004 | 930.5 | .000850 | 180. | .9953 | .12344 | 957.9 | .000870 |
| 185. | .9688 | .11688 | 893.3 | .000843 | 185. | .9815 | .12029 | 919.8 | .000863 |
| 190. | .9547 | .11385 | 859.2 | .000836 | 190. | .9678 | .11728 | 885.1 | .000856 |
| 195. | .9407 | .11097 | 828.0 | .000830 | 195. | .9543 | .11440 | 853.2 | .000850 |
| 200. | .9269 | .10823 | 799.4 | .000825 | 200. | .9409 | .11166 | 824.0 | .000845 |
| 210. | .8997 | .10314 | 748.8 | .000816 | 210. | .9146 | .10556 | 772.3 | .000836 |
| 220. | .8733 | .09856 | 705.8 | .000810 | 220. | .8890 | .10194 | 728.3 | .000830 |
| 230. | .8475 | .09444 | 668.9 | .000807 | 230. | .8641 | .09777 | 690.5 | .000826 |
| 240. | .8226 | .09073 | 637.2 | .000807 | 240. | .8399 | .09400 | 658.0 | .000825 |
| 250. | .7986 | .08740 | 609.8 | .000809 | 250. | .8166 | .09059 | 630.0 | .000825 |
| 260. | .7755 | .08439 | 586.1 | .000812 | 260. | .7940 | .08750 | 605.6 | .000828 |
| 270. | .7532 | .08167 | 565.5 | .000818 | 270. | .7724 | .08468 | 584.4 | .000832 |
| 280. | .7319 | .07921 | 547.6 | .000822 | 280. | .7515 | .08211 | 565.9 | .000837 |
| 290. | .7115 | .07696 | 532.0 | .000833 | 290. | .7316 | .07975 | 549.7 | .000844 |
| 300. | .6921 | .07491 | 518.4 | .000842 | 300. | .7124 | .07759 | 535.5 | .000851 |
| 310. | .6735 | .07305 | 506.5 | .000852 | 310. | .6941 | .07562 | 523.1 | .000859 |
| 320. | .6557 | .07143 | 496.1 | .000864 | 320. | .6766 | .07388 | 512.2 | .000869 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 85.0 MPa Isobar | | | | | 90.0 MPa Isobar | | | | |
|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|-----------------|--------------------|---------------------------|-------------------------------|-----------------------------------|
| Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- p/cm.s | Thermal Diffusivity cm**2/s | Temp. K | Density g/cm**3 | Thermal Cond. W/m.K | Viscosity micro- p/cm.s | Thermal Diffusivity cm**2/s |
| * 63.44 | 1.3527 | .22390 | 6927.9 | .001000 | * 64.052 | 1.3550 | .22497 | 7014.2 | .001003 |
| 64. | 1.3511 | .22321 | 6834.9 | .001001 | 66. | 1.3483 | .22260 | 6622.2 | .001007 |
| 66. | 1.3441 | .22076 | 6446.5 | .001004 | 68. | 1.3415 | .22032 | 6250.3 | .001010 |
| 68. | 1.3373 | .21847 | 6087.5 | .001006 | 70. | 1.3348 | .21818 | 5906.5 | .001013 |
| 70. | 1.3306 | .21631 | 5755.0 | .001008 | 72. | 1.3283 | .21615 | 5588.2 | .001015 |
| 72. | 1.3239 | .21425 | 5446.6 | .001010 | 74. | 1.3218 | .21422 | 5293.1 | .001017 |
| 74. | 1.3174 | .21228 | 5150.4 | .001011 | 76. | 1.3154 | .21235 | 5019.2 | .001018 |
| 76. | 1.3109 | .21039 | 4894.6 | .001012 | 78. | 1.3091 | .21055 | 4764.8 | .001020 |
| 78. | 1.3045 | .20855 | 4647.5 | .001013 | 80. | 1.3028 | .20879 | 4528.3 | .001021 |
| 80. | 1.2981 | .20676 | 4417.6 | .001014 | | | | | |
| 82. | 1.2918 | .20500 | 4203.5 | .001014 | 82. | 1.2966 | .20707 | 4308.3 | .001021 |
| 84. | 1.2855 | .20328 | 4004.1 | .001014 | 84. | 1.2904 | .20538 | 4103.4 | .001022 |
| 86. | 1.2793 | .20157 | 3818.2 | .001014 | 86. | 1.2842 | .20372 | 3912.5 | .001022 |
| 88. | 1.2731 | .19989 | 3644.8 | .001014 | 88. | 1.2781 | .20207 | 3734.4 | .001022 |
| 90. | 1.2669 | .19821 | 3482.8 | .001013 | 90. | 1.2720 | .20043 | 3568.1 | .001022 |
| 92. | 1.2607 | .19654 | 3331.3 | .001013 | 92. | 1.2660 | .19880 | 3412.8 | .001022 |
| 94. | 1.2546 | .19488 | 3189.7 | .001012 | 94. | 1.2599 | .19717 | 3267.5 | .001021 |
| 96. | 1.2485 | .19322 | 3057.1 | .001011 | 96. | 1.2539 | .19555 | 3131.6 | .001021 |
| 98. | 1.2424 | .19156 | 2932.9 | .001010 | 98. | 1.2479 | .19392 | 3004.2 | .001020 |
| 100. | 1.2363 | .18989 | 2816.4 | .001009 | 100. | 1.2420 | .19229 | 2884.8 | .001019 |
| 102. | 1.2302 | .18823 | 2707.0 | .001007 | 102. | 1.2360 | .19066 | 2772.7 | .001018 |
| 104. | 1.2242 | .18656 | 2604.3 | .001006 | 104. | 1.2301 | .18903 | 2667.5 | .001017 |
| 106. | 1.2182 | .18488 | 2507.7 | .001004 | 106. | 1.2242 | .18739 | 2568.5 | .001015 |
| 108. | 1.2122 | .18320 | 2416.8 | .001002 | 108. | 1.2183 | .18574 | 2475.4 | .001014 |
| 110. | 1.2062 | .18152 | 2331.2 | .001000 | 110. | 1.2124 | .18409 | 2387.7 | .001012 |
| 112. | 1.2002 | .17983 | 2250.5 | .000998 | 112. | 1.2066 | .18243 | 2305.1 | .001010 |
| 114. | 1.1942 | .17814 | 2174.3 | .000996 | 114. | 1.2007 | .18078 | 2227.1 | .001008 |
| 116. | 1.1883 | .17645 | 2102.4 | .000993 | 116. | 1.1949 | .17911 | 2153.5 | .001006 |
| 118. | 1.1824 | .17475 | 2034.5 | .000991 | 118. | 1.1891 | .17745 | 2083.9 | .001003 |
| 120. | 1.1765 | .17306 | 1970.2 | .000988 | 120. | 1.1833 | .17578 | 2018.2 | .001001 |
| 122. | 1.1706 | .17136 | 1909.4 | .000985 | 122. | 1.1775 | .17411 | 1955.9 | .000998 |
| 124. | 1.1647 | .16967 | 1851.8 | .000982 | 124. | 1.1718 | .17245 | 1896.9 | .000996 |
| 126. | 1.1588 | .16798 | 1797.1 | .000979 | 126. | 1.1660 | .17078 | 1841.0 | .000993 |
| 128. | 1.1530 | .16629 | 1745.3 | .000976 | 128. | 1.1603 | .16912 | 1788.0 | .000990 |
| 130. | 1.1471 | .16461 | 1696.1 | .000973 | 130. | 1.1546 | .16746 | 1737.6 | .000987 |
| 132. | 1.1413 | .16293 | 1649.3 | .000970 | 132. | 1.1489 | .16580 | 1689.8 | .000984 |
| 134. | 1.1355 | .16126 | 1604.8 | .000967 | 134. | 1.1433 | .16416 | 1644.3 | .000981 |
| 136. | 1.1297 | .15959 | 1562.5 | .000963 | 136. | 1.1376 | .16251 | 1601.0 | .000978 |
| 138. | 1.1240 | .15794 | 1522.2 | .000960 | 138. | 1.1320 | .16088 | 1559.8 | .000974 |
| 140. | 1.1182 | .15629 | 1483.8 | .000956 | 140. | 1.1263 | .15926 | 1520.5 | .000971 |
| 142. | 1.1125 | .15466 | 1447.2 | .000953 | 142. | 1.1207 | .15764 | 1483.1 | .000968 |
| 144. | 1.1068 | .15304 | 1412.2 | .000949 | 144. | 1.1152 | .15604 | 1447.4 | .000964 |
| 146. | 1.1011 | .15143 | 1378.9 | .000946 | 146. | 1.1096 | .15445 | 1413.2 | .000961 |
| 148. | 1.0954 | .14984 | 1347.0 | .000942 | 148. | 1.1040 | .15287 | 1380.7 | .000958 |
| 150. | 1.0897 | .14826 | 1316.5 | .000939 | 150. | 1.0985 | .15131 | 1349.5 | .000954 |
| 152. | 1.0841 | .14669 | 1287.4 | .000935 | 152. | 1.0930 | .14976 | 1319.7 | .000951 |
| 154. | 1.0784 | .14515 | 1259.5 | .000931 | 154. | 1.0875 | .14822 | 1291.2 | .000947 |
| 156. | 1.0728 | .14362 | 1232.7 | .000928 | 156. | 1.0820 | .14671 | 1263.9 | .000944 |
| 158. | 1.0672 | .14210 | 1207.1 | .000924 | 158. | 1.0766 | .14520 | 1237.7 | .000941 |
| 160. | 1.0616 | .14061 | 1182.6 | .000921 | 160. | 1.0711 | .14372 | 1212.6 | .000937 |
| 165. | 1.0478 | .13695 | 1125.5 | .000912 | 165. | 1.0576 | .14009 | 1154.3 | .000929 |
| 170. | 1.0340 | .13341 | 1073.8 | .000904 | 170. | 1.0442 | .13658 | 1101.5 | .000921 |
| 175. | 1.0203 | .13001 | 1027.0 | .000896 | 175. | 1.0309 | .13319 | 1053.7 | .000913 |
| 180. | 1.0068 | .12674 | 984.4 | .000888 | 180. | 1.0177 | .12993 | 1010.2 | .000906 |
| 185. | .9934 | .12360 | 945.6 | .000881 | 185. | 1.0047 | .12680 | 970.6 | .000899 |
| 190. | .9802 | .12059 | 910.1 | .000875 | 190. | .9918 | .12380 | 934.3 | .000893 |
| 195. | .9670 | .11772 | 877.5 | .000869 | 195. | .9790 | .12093 | 901.1 | .000887 |
| 200. | .9540 | .11497 | 847.7 | .000864 | 200. | .9664 | .11818 | 870.6 | .000882 |
| 210. | .9285 | .10985 | 794.9 | .000855 | 210. | .9416 | .11305 | 816.7 | .000873 |
| 220. | .9036 | .10521 | 749.9 | .000848 | 220. | .9174 | .10837 | 770.7 | .000866 |
| 230. | .8794 | .10099 | 711.3 | .000844 | 230. | .8938 | .10411 | 731.3 | .000861 |
| 240. | .8560 | .09716 | 678.0 | .000842 | 240. | .8710 | .10022 | 697.3 | .000858 |
| 250. | .8332 | .09368 | 649.2 | .000841 | 250. | .8488 | .09667 | 667.8 | .000857 |
| 260. | .8113 | .09050 | 624.2 | .000843 | 260. | .8274 | .09341 | 642.1 | .000857 |
| 270. | .7901 | .08759 | 602.4 | .000845 | 270. | .8067 | .09041 | 619.7 | .000859 |
| 280. | .7698 | .08492 | 583.3 | .000849 | 280. | .7868 | .08765 | 600.1 | .000861 |
| 290. | .7502 | .08246 | 566.6 | .000854 | 290. | .7676 | .08509 | 582.8 | .000865 |
| 300. | .7314 | .08020 | 551.9 | .000860 | 300. | .7492 | .08272 | 567.6 | .000869 |
| 310. | .7134 | .07812 | 539.0 | .000866 | 310. | .7314 | .08054 | 554.3 | .000873 |
| 320. | .6961 | .07625 | 527.6 | .000874 | 320. | .7144 | .07855 | 542.5 | .000879 |

* Two Phase Boundary

Table 5. Transport Properties of Oxygen, Isobars, SI Units.

| 95.0 MPa Isobar | | | | | 100.0 MPa Isobar | | | | |
|-----------------|---------|---------------|-----------|---------------------|------------------|---------|---------------|-----------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| K | g/cm**3 | W/m.K | g/cm.s | cm**2/s | K | g/cm**3 | W/m.K | g/cm.s | cm**2/s |
| * 64.55R | 1.3573 | .22614 | 7097.1 | .001006 | * 65.060 | 1.3595 | .22730 | 7176.6 | .001009 |
| 66. | 1.3523 | .22441 | 6799.1 | .001009 | 66. | 1.3563 | .22619 | 6977.4 | .001012 |
| 68. | 1.3456 | .22215 | 6414.2 | .001013 | 68. | 1.3496 | .22396 | 6579.1 | .001016 |
| 70. | 1.3390 | .22003 | 6058.9 | .001017 | 70. | 1.3430 | .22186 | 6212.0 | .001021 |
| 72. | 1.3325 | .21803 | 5730.3 | .001020 | 72. | 1.3366 | .21988 | 5873.0 | .001024 |
| 74. | 1.3261 | .21612 | 5426.1 | .001022 | 74. | 1.3303 | .21800 | 5559.5 | .001027 |
| 76. | 1.3198 | .21429 | 5144.0 | .001024 | 76. | 1.3240 | .21619 | 5269.2 | .001029 |
| 78. | 1.3135 | .21251 | 4882.3 | .001026 | 78. | 1.3179 | .21445 | 4999.9 | .001032 |
| 80. | 1.3073 | .21079 | 4639.1 | .001027 | 80. | 1.3118 | .21276 | 4750.0 | .001033 |
| 82. | 1.3012 | .20911 | 4413.0 | .001028 | 82. | 1.3057 | .21111 | 4517.7 | .001035 |
| 84. | 1.2951 | .20745 | 4202.6 | .001029 | 84. | 1.2997 | .20948 | 4301.7 | .001036 |
| 86. | 1.2890 | .20582 | 4006.5 | .001030 | 86. | 1.2937 | .20789 | 4100.5 | .001037 |
| 88. | 1.2830 | .20421 | 3823.8 | .001030 | 88. | 1.2878 | .20631 | 3913.0 | .001038 |
| 90. | 1.2770 | .20260 | 3653.2 | .001031 | 90. | 1.2819 | .20474 | 3738.2 | .001039 |
| 92. | 1.2711 | .20101 | 3493.9 | .001031 | 92. | 1.2760 | .20318 | 3574.9 | .001039 |
| 94. | 1.2651 | .19942 | 3345.0 | .001030 | 94. | 1.2702 | .20163 | 3422.2 | .001039 |
| 96. | 1.2592 | .19783 | 3205.7 | .001030 | 96. | 1.2644 | .20007 | 3279.5 | .001039 |
| 98. | 1.2533 | .19624 | 3075.2 | .001030 | 98. | 1.2586 | .19851 | 3145.8 | .001039 |
| 100. | 1.2475 | .19465 | 2952.8 | .001029 | 100. | 1.2528 | .19695 | 3020.5 | .001038 |
| 102. | 1.2416 | .19305 | 2838.0 | .001028 | 102. | 1.2471 | .19539 | 2903.0 | .001038 |
| 104. | 1.2358 | .19145 | 2730.2 | .001027 | 104. | 1.2414 | .19382 | 2792.6 | .001037 |
| 106. | 1.2300 | .18984 | 2628.9 | .001026 | 106. | 1.2357 | .19225 | 2688.9 | .001036 |
| 108. | 1.2242 | .18823 | 2533.6 | .001024 | 108. | 1.2300 | .19066 | 2591.3 | .001035 |
| 110. | 1.2185 | .18661 | 2443.8 | .001023 | 110. | 1.2243 | .18908 | 2499.5 | .001034 |
| 112. | 1.2127 | .18498 | 2359.2 | .001021 | 112. | 1.2187 | .18748 | 2412.9 | .001033 |
| 114. | 1.2070 | .18336 | 2279.4 | .001019 | 114. | 1.2131 | .18588 | 2331.3 | .001031 |
| 116. | 1.2013 | .18172 | 2204.1 | .001017 | 116. | 1.2074 | .18428 | 2254.3 | .001029 |
| 118. | 1.1956 | .18009 | 2132.9 | .001015 | 118. | 1.2019 | .18267 | 2181.5 | .001027 |
| 120. | 1.1899 | .17845 | 2065.6 | .001013 | 120. | 1.1963 | .18106 | 2112.6 | .001025 |
| 122. | 1.1843 | .17681 | 2001.9 | .001011 | 122. | 1.1907 | .17944 | 2047.5 | .001023 |
| 124. | 1.1786 | .17517 | 1941.6 | .001008 | 124. | 1.1852 | .17783 | 1985.8 | .001021 |
| 126. | 1.1730 | .17352 | 1884.4 | .001006 | 126. | 1.1797 | .17621 | 1927.3 | .001018 |
| 128. | 1.1674 | .17189 | 1830.2 | .001003 | 128. | 1.1742 | .17459 | 1871.9 | .001016 |
| 130. | 1.1618 | .17025 | 1778.7 | .001000 | 130. | 1.1687 | .17298 | 1819.2 | .001013 |
| 132. | 1.1562 | .16862 | 1729.8 | .000997 | 132. | 1.1633 | .17137 | 1769.2 | .001010 |
| 134. | 1.1507 | .16699 | 1683.2 | .000995 | 134. | 1.1578 | .16976 | 1721.7 | .001008 |
| 136. | 1.1451 | .16537 | 1639.0 | .000992 | 136. | 1.1524 | .16816 | 1676.4 | .001005 |
| 138. | 1.1396 | .16375 | 1596.8 | .000988 | 138. | 1.1470 | .16656 | 1633.4 | .001002 |
| 140. | 1.1341 | .16215 | 1556.7 | .000985 | 140. | 1.1416 | .16497 | 1592.4 | .000999 |
| 142. | 1.1287 | .16055 | 1518.4 | .000982 | 142. | 1.1363 | .16339 | 1553.2 | .000996 |
| 144. | 1.1232 | .15896 | 1481.9 | .000979 | 144. | 1.1309 | .16182 | 1515.9 | .000993 |
| 146. | 1.1178 | .15739 | 1447.0 | .000976 | 146. | 1.1256 | .16026 | 1480.3 | .000990 |
| 148. | 1.1123 | .15583 | 1413.7 | .000973 | 148. | 1.1203 | .15872 | 1446.3 | .000987 |
| 150. | 1.1069 | .15428 | 1381.9 | .000969 | 150. | 1.1150 | .15718 | 1413.8 | .000984 |
| 152. | 1.1015 | .15274 | 1351.5 | .000966 | 152. | 1.1097 | .15566 | 1382.7 | .000981 |
| 154. | 1.0962 | .15122 | 1322.3 | .000963 | 154. | 1.1045 | .15415 | 1352.9 | .000978 |
| 156. | 1.0908 | .14972 | 1294.4 | .000960 | 156. | 1.0992 | .15266 | 1324.4 | .000975 |
| 158. | 1.0855 | .14823 | 1267.7 | .000956 | 158. | 1.0940 | .15118 | 1297.1 | .000971 |
| 160. | 1.0802 | .14675 | 1242.1 | .000953 | 160. | 1.0888 | .14971 | 1271.0 | .000968 |
| 165. | 1.0670 | .14315 | 1182.5 | .000945 | 165. | 1.0759 | .14613 | 1210.1 | .000961 |
| 170. | 1.0539 | .13966 | 1128.6 | .000937 | 170. | 1.0631 | .14265 | 1155.1 | .000953 |
| 175. | 1.0409 | .13628 | 1079.8 | .000930 | 175. | 1.0505 | .13930 | 1105.3 | .000946 |
| 180. | 1.0281 | .13304 | 1035.4 | .000923 | 180. | 1.0379 | .13606 | 1059.9 | .000939 |
| 185. | 1.0154 | .12991 | 994.9 | .000916 | 185. | 1.0255 | .13294 | 1018.6 | .000932 |
| 190. | 1.0028 | .12692 | 957.9 | .000910 | 190. | 1.0132 | .12995 | 980.8 | .000926 |
| 195. | .9903 | .12404 | 924.0 | .000904 | 195. | 1.0011 | .12708 | 946.2 | .000921 |
| 200. | .9780 | .12129 | 892.9 | .000899 | 200. | .9891 | .12432 | 914.5 | .000915 |
| 210. | .9539 | .11614 | 837.8 | .000890 | 210. | .9655 | .11916 | 858.3 | .000906 |
| 220. | .9303 | .11144 | 790.9 | .000883 | 220. | .9425 | .11442 | 810.4 | .000899 |
| 230. | .9073 | .10713 | 750.6 | .000877 | 230. | .9201 | .11008 | 769.3 | .000893 |
| 240. | .8851 | .10319 | 715.8 | .000874 | 240. | .8983 | .10608 | 733.7 | .000889 |
| 250. | .8634 | .09957 | 685.6 | .000872 | 250. | .8772 | .10240 | 702.9 | .000886 |
| 260. | .8425 | .09624 | 659.3 | .000871 | 260. | .8568 | .09899 | 676.0 | .000885 |
| 270. | .8223 | .09316 | 636.4 | .000872 | 270. | .8370 | .09583 | 652.4 | .000884 |
| 280. | .8028 | .09030 | 616.2 | .000873 | 280. | .8178 | .09289 | 631.8 | .000884 |
| 290. | .7839 | .08765 | 598.5 | .000875 | 290. | .7993 | .09014 | 613.5 | .000885 |
| 300. | .7658 | .08518 | 582.8 | .000878 | 300. | .7815 | .08757 | 597.5 | .000887 |
| 310. | .7484 | .08289 | 569.0 | .000881 | 310. | .7643 | .08517 | 583.2 | .000888 |
| 320. | .7316 | .08079 | 556.8 | .000885 | 320. | .7478 | .08296 | 570.6 | .000891 |

* Two Phase Boundary

Table 6. Transport Properties of Oxygen for saturated Liquid and Vapor, Engr. Units

| Temp. °R | Pressure psia | Density lb/ft ³ | Thermal Cond. BTU/ft.h.°R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft ² /h | Temp. °R | Pressure psia | Density lb/ft ³ | Thermal Cond. BTU/ft.h.°R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft ² /h |
|-------------|------------------|-------------------------------|---------------------------------|--------------------------------|--|-------------|------------------|-------------------------------|---------------------------------|--------------------------------|--|
| 97.846 | .021 | 81.5428 | .11769 | 326.06 | .00363 | 190. | 57.250 | 66.2125 | .07445 | 91.28 | .00267 |
| 97.846 | .021 | .0007 | .00235 | 2.44 | 16.54835 | 190. | 57.250 | .4947 | .00574 | 5.37 | .02249 |
| 100. | .031 | 81.2157 | .11639 | 317.52 | .00360 | 192. | 62.172 | 65.8256 | .07354 | 89.02 | .00264 |
| 100. | .031 | .0009 | .00248 | 2.52 | 12.33342 | 192. | 62.172 | 1.0642 | .00592 | 5.44 | .02090 |
| 102. | .043 | 80.9115 | .11522 | 309.51 | .00358 | 194. | 67.399 | 65.4346 | .07262 | 86.82 | .00261 |
| 102. | .043 | .0013 | .00258 | 2.60 | 9.44578 | 194. | 67.399 | 1.1484 | .00591 | 5.51 | .01944 |
| 104. | .059 | 80.6068 | .11409 | 301.46 | .00355 | 196. | 72.942 | 65.0393 | .07170 | 84.69 | .00258 |
| 104. | .059 | .0017 | .00268 | 2.67 | 7.32589 | 196. | 72.942 | 1.2376 | .00599 | 5.57 | .01810 |
| 106. | .079 | 80.3015 | .11298 | 293.43 | .00353 | 198. | 78.812 | 64.6396 | .07077 | 82.61 | .00255 |
| 106. | .079 | .0022 | .00277 | 2.74 | 5.71802 | 198. | 78.812 | 1.3220 | .00608 | 5.64 | .01686 |
| 108. | .105 | 79.9955 | .11189 | 285.46 | .00351 | 200. | 85.021 | 64.2352 | .06984 | 80.59 | .00251 |
| 108. | .105 | .0029 | .00286 | 2.81 | 4.50094 | 200. | 85.021 | 1.4318 | .00616 | 5.71 | .01573 |
| 110. | .139 | 79.6888 | .11083 | 277.58 | .00349 | 202. | 91.580 | 63.8259 | .06891 | 78.63 | .00248 |
| 110. | .139 | .0038 | .00294 | 2.88 | 3.57259 | 202. | 91.580 | 1.5374 | .00625 | 5.78 | .01468 |
| 112. | .181 | 79.3812 | .10990 | 269.81 | .00347 | 204. | 98.501 | 63.4115 | .06797 | 76.71 | .00245 |
| 112. | .181 | .0048 | .00302 | 2.94 | 2.85897 | 204. | 98.501 | 1.6489 | .00634 | 5.85 | .01370 |
| 114. | .234 | 79.0728 | .10878 | 262.17 | .00345 | 206. | 105.794 | 62.9916 | .06703 | 74.84 | .00241 |
| 114. | .234 | .0061 | .00310 | 3.01 | 2.30614 | 206. | 105.794 | 1.7666 | .00643 | 5.92 | .01280 |
| 116. | .300 | 78.7635 | .10778 | 254.68 | .00343 | 208. | 113.471 | 62.5660 | .06609 | 73.02 | .00238 |
| 116. | .300 | .0077 | .00317 | 3.07 | 1.87458 | 208. | 113.471 | 1.8908 | .00652 | 5.99 | .01197 |
| 118. | .380 | 78.4532 | .10680 | 247.36 | .00341 | 210. | 121.545 | 62.1344 | .06514 | 71.25 | .00234 |
| 118. | .380 | .0096 | .00324 | 3.14 | 1.53514 | 210. | 121.545 | 2.0218 | .00662 | 6.07 | .01119 |
| 120. | .478 | 78.1419 | .10583 | 240.22 | .00340 | 212. | 130.025 | 61.6964 | .06419 | 69.51 | .00231 |
| 120. | .478 | .0119 | .00331 | 3.20 | 1.26617 | 212. | 130.025 | 2.1600 | .00672 | 6.14 | .01047 |
| 122. | .597 | 77.8295 | .10487 | 233.25 | .00338 | 214. | 138.926 | 61.2518 | .06323 | 67.82 | .00227 |
| 122. | .597 | .0146 | .00338 | 3.27 | 1.05152 | 214. | 138.926 | 2.3056 | .00682 | 6.22 | .00979 |
| 124. | .738 | 77.5160 | .10393 | 226.48 | .00336 | 216. | 148.257 | 60.8001 | .06227 | 66.16 | .00223 |
| 124. | .738 | .0178 | .00344 | 3.33 | .87901 | 216. | 148.257 | 2.4592 | .00692 | 6.30 | .00916 |
| 126. | .907 | 77.2014 | .10299 | 219.89 | .00334 | 218. | 158.031 | 60.3409 | .06130 | 64.54 | .00219 |
| 126. | .907 | .0216 | .00351 | 3.39 | .73945 | 218. | 158.031 | 2.6210 | .00702 | 6.37 | .00858 |
| 128. | 1.106 | 76.8855 | .10207 | 213.49 | .00333 | 220. | 168.260 | 59.8738 | .06033 | 62.96 | .00215 |
| 128. | 1.106 | .0259 | .00357 | 3.45 | .62579 | 220. | 168.260 | 2.7915 | .00713 | 6.45 | .00802 |
| 130. | 1.340 | 76.5685 | .10115 | 207.29 | .00331 | 222. | 178.957 | 59.3984 | .05936 | 61.41 | .00211 |
| 130. | 1.340 | .0309 | .00364 | 3.51 | .53265 | 222. | 178.957 | 2.9712 | .00724 | 6.54 | .00751 |
| 132. | 1.613 | 76.2501 | .10024 | 201.27 | .00329 | 224. | 190.133 | 58.9141 | .05837 | 59.89 | .00207 |
| 132. | 1.613 | .0367 | .00370 | 3.58 | .45587 | 224. | 190.133 | 3.1606 | .00736 | 6.62 | .00703 |
| 134. | 1.930 | 75.9305 | .09934 | 195.45 | .00328 | 226. | 201.801 | 58.4203 | .05739 | 58.40 | .00202 |
| 134. | 1.930 | .0433 | .00377 | 3.64 | .39220 | 226. | 201.801 | 3.3602 | .00748 | 6.70 | .00657 |
| 136. | 2.296 | 75.6094 | .09844 | 189.81 | .00326 | 228. | 213.974 | 57.9165 | .05640 | 56.93 | .00198 |
| 136. | 2.296 | .0508 | .00383 | 3.70 | .33910 | 228. | 213.974 | 3.5708 | .00760 | 6.79 | .00614 |
| 138. | 2.717 | 75.2870 | .09754 | 184.35 | .00324 | 230. | 226.664 | 57.4021 | .05540 | 55.49 | .00193 |
| 138. | 2.717 | .0593 | .00390 | 3.76 | .29458 | 230. | 226.664 | 3.7928 | .00773 | 6.88 | .00574 |
| 140. | 3.198 | 74.9631 | .09666 | 179.07 | .00322 | 232. | 239.884 | 56.8763 | .05440 | 54.08 | .00189 |
| 140. | 3.198 | .0689 | .00396 | 3.82 | .25707 | 232. | 239.884 | 4.0271 | .00787 | 6.98 | .00536 |
| 142. | 3.745 | 74.6377 | .09577 | 173.97 | .00321 | 234. | 253.648 | 56.3382 | .05340 | 52.69 | .00184 |
| 142. | 3.745 | .0797 | .00403 | 3.88 | .22530 | 234. | 253.648 | 4.2745 | .00801 | 7.07 | .00501 |
| 144. | 4.364 | 74.3108 | .09489 | 169.04 | .00319 | 236. | 267.969 | 55.7871 | .05239 | 51.32 | .00179 |
| 144. | 4.364 | .0917 | .00409 | 3.94 | .19826 | 236. | 267.969 | 4.5359 | .00816 | 7.17 | .00467 |
| 146. | 5.063 | 73.9823 | .09400 | 164.27 | .00317 | 238. | 282.860 | 55.2220 | .05137 | 49.97 | .00174 |
| 146. | 5.063 | .1051 | .00416 | 4.00 | .17515 | 238. | 282.860 | 4.8124 | .00832 | 7.27 | .00435 |
| 148. | 5.848 | 73.6521 | .09312 | 159.66 | .00315 | 240. | 298.335 | 54.6417 | .05035 | 48.64 | .00169 |
| 148. | 5.848 | .1200 | .00422 | 4.06 | .15530 | 240. | 298.335 | 5.1050 | .00849 | 7.38 | .00405 |

Table 6. Transport Properties of Oxygen for saturated Liquid and Vapor, Engr. Units

| Temp. R | Pressure psia | Density lb/ft ³ | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft ² /h | Temp. R | Pressure psia | Density lb/ft ³ | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft ² /h |
|------------|------------------|-------------------------------|--------------------------------|--------------------------------|--|------------|------------------|-------------------------------|--------------------------------|--------------------------------|--|
| 150. | 6.727 | 73.3203 | .09225 | 155.20 | .00313 | 242. | 314.410 | 54.0451 | .04932 | 47.32 | .00164 |
| 150. | 6.727 | .1364 | .00429 | 4.12 | .13819 | 242. | 314.410 | 5.4150 | .00867 | 7.49 | .00376 |
| 152. | 7.707 | 72.9867 | .09137 | 150.90 | .00311 | 244. | 331.098 | 53.4307 | .04830 | 46.02 | .00159 |
| 152. | 7.707 | .1546 | .00435 | 4.18 | .12337 | 244. | 331.098 | 5.7440 | .00887 | 7.61 | .00349 |
| 154. | 8.795 | 72.6513 | .09049 | 146.74 | .00309 | 246. | 348.414 | 52.7969 | .04726 | 44.73 | .00153 |
| 154. | 8.795 | .1745 | .00442 | 4.25 | .11050 | 246. | 348.414 | 6.0937 | .00909 | 7.73 | .00323 |
| 155. | 10.001 | 72.3140 | .08961 | 142.72 | .00307 | 248. | 366.375 | 52.1419 | .04623 | 43.45 | .00148 |
| 155. | 10.001 | .1963 | .00449 | 4.31 | .09926 | 248. | 366.375 | 6.4659 | .00932 | 7.86 | .00299 |
| 158. | 11.332 | 71.9748 | .08873 | 138.83 | .00305 | 250. | 384.997 | 51.4634 | .04519 | 42.18 | .00142 |
| 158. | 11.332 | .2202 | .00456 | 4.37 | .08943 | 250. | 384.997 | 6.8631 | .00958 | 7.99 | .00275 |
| 160. | 12.797 | 71.6336 | .08786 | 135.07 | .00303 | 252. | 404.297 | 50.7590 | .04416 | 40.92 | .00136 |
| 160. | 12.797 | .2462 | .00463 | 4.43 | .08079 | 252. | 404.297 | 7.2879 | .00986 | 8.13 | .00253 |
| 162. | 14.404 | 71.2902 | .08698 | 131.44 | .00301 | 254. | 424.292 | 50.0254 | .04313 | 39.65 | .00129 |
| 162. | 14.404 | .2744 | .00470 | 4.49 | .07317 | 254. | 424.292 | 7.7436 | .01019 | 8.29 | .00232 |
| 164. | 16.163 | 70.9448 | .08610 | 127.93 | .00299 | 256. | 445.001 | 49.2589 | .04210 | 38.39 | .00123 |
| 164. | 16.163 | .3051 | .00477 | 4.55 | .06643 | 256. | 445.001 | 8.2341 | .01055 | 8.45 | .00212 |
| 166. | 18.083 | 70.5971 | .08521 | 124.54 | .00297 | 258. | 466.444 | 48.4548 | .04109 | 37.12 | .00116 |
| 166. | 18.083 | .3382 | .00484 | 4.61 | .06046 | 258. | 466.444 | 8.7645 | .01096 | 8.63 | .00192 |
| 168. | 20.173 | 70.2471 | .08433 | 121.25 | .00295 | 260. | 488.642 | 47.6069 | .04009 | 35.85 | .00109 |
| 168. | 20.173 | .3741 | .00491 | 4.67 | .05514 | 260. | 488.642 | 9.3410 | .01145 | 8.82 | .00174 |
| 170. | 22.443 | 69.8946 | .08344 | 118.07 | .00293 | 262. | 511.619 | 46.7073 | .03912 | 34.55 | .00102 |
| 170. | 22.443 | .4127 | .00498 | 4.74 | .05040 | 262. | 511.619 | 9.9717 | .01201 | 9.03 | .00156 |
| 172. | 24.903 | 69.5396 | .08256 | 115.00 | .00290 | 264. | 535.399 | 45.7454 | .03818 | 33.24 | .00094 |
| 172. | 24.903 | .4542 | .00505 | 4.80 | .04615 | 264. | 535.399 | 10.6676 | .01268 | 9.26 | .00138 |
| 174. | 27.562 | 69.1821 | .08167 | 112.02 | .00288 | 266. | 560.010 | 44.7061 | .03730 | 31.88 | .00085 |
| 174. | 27.562 | .4988 | .00513 | 4.86 | .04234 | 266. | 560.010 | 11.4439 | .01349 | 9.52 | .00120 |
| 176. | 30.431 | 68.8217 | .08077 | 109.14 | .00285 | 268. | 585.483 | 43.5671 | .03651 | 30.48 | .00076 |
| 176. | 30.431 | .5466 | .00520 | 4.92 | .03892 | 268. | 585.483 | 12.3231 | .01449 | 9.83 | .00103 |
| 178. | 33.519 | 68.4586 | .07988 | 106.34 | .00283 | 270. | 611.855 | 42.2934 | .03583 | 29.00 | .00066 |
| 178. | 33.519 | .5978 | .00528 | 4.99 | .03583 | 270. | 611.855 | 13.3407 | .01576 | 10.18 | .00085 |
| 180. | 36.838 | 68.0925 | .07898 | 103.64 | .00280 | 272. | 639.170 | 40.8236 | .03533 | 27.39 | .00055 |
| 180. | 36.838 | .6525 | .00535 | 5.05 | .03304 | 272. | 639.170 | 14.5588 | .01744 | 10.62 | .00067 |
| 182. | 40.397 | 67.7232 | .07808 | 101.01 | .00278 | 274. | 667.486 | 39.0338 | .03511 | 25.57 | .00042 |
| 182. | 40.397 | .7109 | .00543 | 5.11 | .03052 | 274. | 667.486 | 16.1040 | .01975 | 11.20 | .00048 |
| 184. | 44.207 | 67.3508 | .07718 | 98.47 | .00275 | 276. | 696.886 | 36.5919 | .03533 | 23.29 | .00025 |
| 184. | 44.207 | .7732 | .00551 | 5.18 | .02822 | 276. | 696.886 | 18.3235 | .02438 | 12.08 | .00027 |
| 186. | 48.279 | 66.9749 | .07627 | 96.00 | .00272 | 278. | 727.543 | 31.3822 | .05145 | 19.16 | .00005 |
| 186. | 48.279 | .8394 | .00558 | 5.24 | .02613 | 278. | 727.543 | 23.9567 | .06158 | 14.65 | .00003 |
| 188. | 52.623 | 66.5956 | .07536 | 93.60 | .00270 | 278.246 | 731.426 | 27.2276 | | | |
| 188. | 52.623 | .9099 | .00566 | 5.31 | .02423 | 278.246 | 731.426 | 27.2276 | | | |

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 5. csia Isobar | | | | | 10. csia Isobar | | | | |
|----------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-----------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. ° | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. ° | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 97.853 | 81.5442 | .11770 | 326.13 | .00363 | * 97.860 | 81.5456 | .11770 | 326.20 | .00363 |
| 100. | 81.2192 | .11640 | 317.62 | .00360 | 100. | 81.2207 | .11641 | 317.71 | .00360 |
| 105. | 80.4568 | .11354 | 297.53 | .00354 | 105. | 80.4594 | .11355 | 297.62 | .00354 |
| 110. | 79.6914 | .11084 | 277.66 | .00349 | 110. | 79.6941 | .11085 | 277.74 | .00349 |
| 115. | 78.9209 | .10829 | 258.48 | .00344 | 115. | 78.9238 | .10830 | 258.56 | .00344 |
| 120. | 78.1446 | .10584 | 240.28 | .00340 | 120. | 78.1475 | .10585 | 240.35 | .00340 |
| 125. | 77.3615 | .10347 | 223.21 | .00335 | 125. | 77.3646 | .10348 | 223.28 | .00335 |
| 130. | 76.5709 | .10116 | 207.33 | .00331 | 130. | 76.5742 | .10117 | 207.40 | .00331 |
| 135. | 75.7721 | .09889 | 192.64 | .00327 | 135. | 75.7756 | .09891 | 192.70 | .00327 |
| 140. | 74.9644 | .09666 | 179.09 | .00322 | 140. | 74.9681 | .09667 | 179.15 | .00322 |
| 145. | 74.1470 | .09445 | 166.63 | .00318 | 145. | 74.1509 | .09446 | 166.69 | .00318 |
| * 145.828 | 74.0106 | .09408 | 164.67 | .00317 | 150. | 73.3230 | .09225 | 155.23 | .00313 |
| 150. | .1009 | .00415 | 4.00 | .17700 | 155. | 72.4834 | .09005 | 144.72 | .00308 |
| 155. | .0975 | .00428 | 4.12 | .18860 | * 155.998 | 72.3143 | .08961 | 142.72 | .00308 |
| 160. | .0943 | .00442 | 4.27 | .20294 | * 155.998 | .1963 | .00449 | 4.31 | .09927 |
| 165. | .0913 | .00458 | 4.41 | .21778 | 160. | .1910 | .00461 | 4.42 | .10540 |
| 170. | .0884 | .00474 | 4.56 | .23314 | 165. | .1848 | .00477 | 4.57 | .11327 |
| 175. | .0856 | .00489 | 4.71 | .24901 | 170. | .1790 | .00492 | 4.71 | .12138 |
| 180. | .0835 | .00505 | 4.85 | .26540 | 175. | .1736 | .00508 | 4.86 | .12973 |
| 185. | .0812 | .00521 | 5.00 | .28231 | 180. | .1685 | .00523 | 5.00 | .13833 |
| 190. | .0790 | .00537 | 5.14 | .29973 | 185. | .1637 | .00539 | 5.15 | .14717 |
| 195. | .0770 | .00552 | 5.28 | .31766 | 190. | .1592 | .00555 | 5.29 | .15626 |
| | | .00569 | 5.43 | .33610 | 195. | .1549 | .00571 | 5.44 | .16559 |
| 200. | .0750 | .00585 | 5.57 | .35503 | 200. | .1509 | .00587 | 5.58 | .17516 |
| 205. | .0731 | .00601 | 5.71 | .37445 | 205. | .1471 | .00603 | 5.72 | .18496 |
| 210. | .0714 | .00617 | 5.86 | .39434 | 210. | .1435 | .00620 | 5.86 | .19500 |
| 215. | .0697 | .00634 | 6.00 | .41471 | 215. | .1401 | .00636 | 6.01 | .20527 |
| 220. | .0681 | .00650 | 6.14 | .43554 | 220. | .1368 | .00652 | 6.15 | .21576 |
| 225. | .0665 | .00666 | 6.28 | .45683 | 225. | .1337 | .00668 | 6.29 | .22648 |
| 230. | .0651 | .00682 | 6.42 | .47856 | 230. | .1307 | .00684 | 6.43 | .23741 |
| 235. | .0637 | .00698 | 6.56 | .50073 | 235. | .1279 | .00699 | 6.57 | .24857 |
| 240. | .0623 | .00713 | 6.70 | .52334 | 240. | .1251 | .00715 | 6.71 | .25993 |
| 245. | .0611 | .00729 | 6.84 | .54638 | 245. | .1225 | .00731 | 6.84 | .27151 |
| 250. | .0598 | .00745 | 6.97 | .56984 | 250. | .1200 | .00747 | 6.98 | .28330 |
| 255. | .0586 | .00761 | 7.11 | .59373 | 255. | .1176 | .00762 | 7.12 | .29530 |
| 260. | .0575 | .00776 | 7.25 | .61806 | 260. | .1153 | .00778 | 7.25 | .30751 |
| 265. | .0564 | .00792 | 7.38 | .64283 | 265. | .1131 | .00793 | 7.39 | .31995 |
| 270. | .0554 | .00807 | 7.52 | .66807 | 270. | .1110 | .00809 | 7.52 | .33262 |
| 275. | .0543 | .00823 | 7.65 | .69384 | 275. | .1089 | .00825 | 7.66 | .34556 |
| 280. | .0534 | .00838 | 7.79 | .71975 | 280. | .1070 | .00840 | 7.79 | .35856 |
| 285. | .0524 | .00852 | 7.92 | .74536 | 285. | .1051 | .00854 | 7.93 | .37140 |
| 290. | .0515 | .00867 | 8.05 | .77151 | 290. | .1032 | .00868 | 8.06 | .38450 |
| 295. | .0506 | .00881 | 8.18 | .79811 | 295. | .1015 | .00883 | 8.19 | .39784 |
| 300. | .0498 | .00896 | 8.31 | .82512 | 300. | .0998 | .00897 | 8.32 | .41138 |
| 310. | .0482 | .00925 | 8.57 | .88030 | 310. | .0965 | .00926 | 8.58 | .43903 |
| 320. | .0467 | .00953 | 8.83 | .93694 | 320. | .0935 | .00954 | 8.84 | .46742 |
| 330. | .0452 | .00981 | 9.09 | .99499 | 330. | .0906 | .00982 | 9.09 | .49650 |
| 340. | .0439 | .01009 | 9.34 | 1.05442 | 340. | .0879 | .01010 | 9.34 | .52627 |
| 350. | .0426 | .01036 | 9.59 | 1.11519 | 350. | .0854 | .01038 | 9.59 | .55672 |
| 360. | .0415 | .01064 | 9.83 | 1.17728 | 360. | .0830 | .01065 | 9.84 | .58782 |
| 370. | .0403 | .01091 | 10.08 | 1.24069 | 370. | .0807 | .01092 | 10.08 | .61958 |
| 380. | .0393 | .01117 | 10.32 | 1.30539 | 380. | .0786 | .01118 | 10.32 | .65198 |
| 390. | .0383 | .01144 | 10.55 | 1.37137 | 390. | .0766 | .01145 | 10.56 | .68502 |
| 400. | .0373 | .01170 | 10.79 | 1.43861 | 400. | .0747 | .01171 | 10.79 | .71869 |
| 410. | .0364 | .01196 | 11.02 | 1.50710 | 410. | .0728 | .01197 | 11.03 | .75298 |
| 420. | .0355 | .01222 | 11.25 | 1.57683 | 420. | .0711 | .01223 | 11.26 | .78790 |
| 430. | .0347 | .01247 | 11.48 | 1.64779 | 430. | .0694 | .01248 | 11.49 | .82342 |
| 440. | .0339 | .01273 | 11.71 | 1.71996 | 440. | .0678 | .01274 | 11.71 | .85955 |
| 450. | .0331 | .01298 | 11.93 | 1.79332 | 450. | .0663 | .01299 | 11.94 | .89628 |
| 460. | .0324 | .01323 | 12.16 | 1.86787 | 460. | .0649 | .01324 | 12.16 | .93360 |
| 470. | .0317 | .01348 | 12.37 | 1.94359 | 470. | .0635 | .01349 | 12.38 | .97150 |
| 480. | .0311 | .01373 | 12.59 | 2.02046 | 480. | .0622 | .01374 | 12.60 | 1.00998 |
| 490. | .0304 | .01397 | 12.81 | 2.09847 | 490. | .0609 | .01399 | 12.81 | 1.04903 |
| 500. | .0298 | .01422 | 13.02 | 2.17761 | 500. | .0597 | .01423 | 13.02 | 1.08864 |
| 510. | .0292 | .01446 | 13.23 | 2.25784 | 510. | .0585 | .01448 | 13.24 | 1.12880 |
| 520. | .0287 | .01471 | 13.44 | 2.33917 | 520. | .0574 | .01472 | 13.45 | 1.16950 |
| 530. | .0281 | .01495 | 13.65 | 2.42157 | 530. | .0563 | .01496 | 13.65 | 1.21074 |
| 540. | .0276 | .01519 | 13.86 | 2.50501 | 540. | .0552 | .01520 | 13.86 | 1.25250 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 15. psia Isobar | | | | | 20. psia Isobar | | | | |
|-----------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-----------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 97.868 | 81.5470 | .11771 | 326.27 | .00363 | * 97.875 | 81.5484 | .11771 | 326.34 | .00363 |
| 100. | 81.2232 | .11642 | 317.81 | .00360 | 100. | 81.2257 | .11643 | 317.91 | .00360 |
| 105. | 80.4620 | .11356 | 297.71 | .00354 | 105. | 80.4646 | .11357 | 297.80 | .00354 |
| 110. | 79.6968 | .11086 | 277.82 | .00349 | 110. | 79.6995 | .11087 | 277.90 | .00349 |
| 115. | 78.9266 | .10831 | 258.63 | .00344 | 115. | 78.9294 | .10832 | 258.71 | .00344 |
| 120. | 78.1505 | .10586 | 240.42 | .00340 | 120. | 78.1534 | .10587 | 240.49 | .00340 |
| 125. | 77.3677 | .10349 | 223.35 | .00335 | 125. | 77.3708 | .10350 | 223.41 | .00335 |
| 130. | 76.5774 | .10118 | 207.46 | .00331 | 130. | 76.5807 | .10119 | 207.52 | .00331 |
| 135. | 75.7791 | .09892 | 192.76 | .00327 | 135. | 75.7825 | .09893 | 192.82 | .00327 |
| 140. | 74.9718 | .09668 | 179.21 | .00323 | 140. | 74.9754 | .09670 | 179.26 | .00323 |
| 145. | 74.1547 | .09447 | 166.74 | .00318 | 145. | 74.1586 | .09448 | 166.79 | .00318 |
| 150. | 73.3271 | .09227 | 155.29 | .00313 | 150. | 73.3312 | .09228 | 155.34 | .00313 |
| 155. | 72.4878 | .09007 | 144.76 | .00309 | 155. | 72.4922 | .09008 | 144.81 | .00309 |
| 160. | 71.6356 | .08786 | 135.09 | .00303 | 160. | 71.6403 | .08788 | 135.14 | .00304 |
| * 162.698 | 71.1700 | .08667 | 130.20 | .00301 | 165. | 70.7741 | .08566 | 126.25 | .00295 |
| * 162.698 | .2848 | .00472 | 4.51 | .07073 | * 167.840 | 70.2751 | .08440 | 121.51 | .00298 |
| 165. | .2804 | .00479 | 4.58 | .07322 | * 167.840 | .3711 | .00490 | 4.67 | .05554 |
| 170. | .2713 | .00495 | 4.72 | .07875 | 170. | .3657 | .00497 | 4.73 | .05738 |
| 175. | .2628 | .00510 | 4.87 | .08442 | 175. | .3539 | .00512 | 4.88 | .06173 |
| 180. | .2549 | .00526 | 5.01 | .09026 | 180. | .3430 | .00528 | 5.02 | .06618 |
| 185. | .2475 | .00542 | 5.16 | .09624 | 185. | .3328 | .00544 | 5.17 | .07074 |
| 190. | .2406 | .00557 | 5.30 | .10239 | 190. | .3232 | .00559 | 5.31 | .07541 |
| 195. | .2340 | .00573 | 5.44 | .10868 | 195. | .3142 | .00575 | 5.45 | .08019 |
| 200. | .2278 | .00589 | 5.59 | .11513 | 200. | .3057 | .00591 | 5.59 | .08509 |
| 205. | .2220 | .00605 | 5.73 | .12174 | 205. | .2977 | .00607 | 5.74 | .09009 |
| 210. | .2164 | .00621 | 5.87 | .12849 | 210. | .2901 | .00623 | 5.88 | .09520 |
| 215. | .2112 | .00637 | 6.01 | .13539 | 215. | .2830 | .00639 | 6.02 | .10043 |
| 220. | .2062 | .00653 | 6.15 | .14244 | 220. | .2762 | .00655 | 6.16 | .10575 |
| 225. | .2014 | .00669 | 6.29 | .14964 | 225. | .2697 | .00671 | 6.30 | .11119 |
| 230. | .1968 | .00685 | 6.43 | .15697 | 230. | .2636 | .00687 | 6.44 | .11673 |
| 235. | .1925 | .00701 | 6.57 | .16445 | 235. | .2577 | .00703 | 6.58 | .12237 |
| 240. | .1884 | .00717 | 6.71 | .17207 | 240. | .2521 | .00718 | 6.72 | .12812 |
| 245. | .1844 | .00733 | 6.85 | .17983 | 245. | .2467 | .00734 | 6.86 | .13397 |
| 250. | .1806 | .00748 | 6.99 | .18773 | 250. | .2416 | .00750 | 6.99 | .13993 |
| 255. | .1770 | .00764 | 7.12 | .19577 | 255. | .2367 | .00765 | 7.13 | .14599 |
| 260. | .1735 | .00779 | 7.26 | .20395 | 260. | .2320 | .00781 | 7.27 | .15215 |
| 265. | .1701 | .00795 | 7.40 | .21228 | 265. | .2275 | .00796 | 7.40 | .15842 |
| 270. | .1669 | .00810 | 7.53 | .22076 | 270. | .2231 | .00812 | 7.54 | .16481 |
| 275. | .1638 | .00826 | 7.66 | .22942 | 275. | .2190 | .00828 | 7.67 | .17133 |
| 280. | .1608 | .00841 | 7.80 | .23812 | 280. | .2149 | .00843 | 7.80 | .17788 |
| 285. | .1580 | .00856 | 7.93 | .24670 | 285. | .2111 | .00857 | 7.94 | .18433 |
| 290. | .1552 | .00870 | 8.06 | .25546 | 290. | .2073 | .00871 | 8.07 | .19092 |
| 295. | .1525 | .00884 | 8.19 | .26437 | 295. | .2037 | .00886 | 8.20 | .19762 |
| 300. | .1499 | .00899 | 8.32 | .27342 | 300. | .2003 | .00900 | 8.33 | .20442 |
| 310. | .1450 | .00927 | 8.58 | .29190 | 310. | .1937 | .00929 | 8.59 | .21832 |
| 320. | .1404 | .00956 | 8.84 | .31087 | 320. | .1875 | .00957 | 8.85 | .23258 |
| 330. | .1361 | .00984 | 9.09 | .33030 | 330. | .1817 | .00985 | 9.10 | .24718 |
| 340. | .1320 | .01012 | 9.35 | .35019 | 340. | .1763 | .01013 | 9.35 | .26213 |
| 350. | .1282 | .01039 | 9.59 | .37052 | 350. | .1712 | .01040 | 9.60 | .27740 |
| 360. | .1246 | .01066 | 9.84 | .39129 | 360. | .1664 | .01067 | 9.84 | .29301 |
| 370. | .1212 | .01093 | 10.08 | .41250 | 370. | .1618 | .01094 | 10.09 | .30894 |
| 380. | .1180 | .01120 | 10.32 | .43413 | 380. | .1575 | .01121 | 10.33 | .32520 |
| 390. | .1150 | .01146 | 10.56 | .45619 | 390. | .1534 | .01147 | 10.57 | .34177 |
| 400. | .1121 | .01172 | 10.80 | .47867 | 400. | .1495 | .01173 | 10.80 | .35865 |
| 410. | .1093 | .01198 | 11.03 | .50157 | 410. | .1458 | .01199 | 11.03 | .37585 |
| 420. | .1067 | .01224 | 11.26 | .52488 | 420. | .1423 | .01225 | 11.26 | .39335 |
| 430. | .1042 | .01250 | 11.49 | .54859 | 430. | .1390 | .01251 | 11.49 | .41116 |
| 440. | .1018 | .01275 | 11.72 | .57271 | 440. | .1358 | .01276 | 11.72 | .42927 |
| 450. | .0995 | .01300 | 11.94 | .59722 | 450. | .1328 | .01301 | 11.94 | .44767 |
| 460. | .0974 | .01325 | 12.16 | .62213 | 460. | .1299 | .01326 | 12.16 | .46638 |
| 470. | .0953 | .01350 | 12.38 | .64743 | 470. | .1271 | .01351 | 12.38 | .48537 |
| 480. | .0933 | .01375 | 12.60 | .67311 | 480. | .1244 | .01376 | 12.60 | .50465 |
| 490. | .0914 | .01400 | 12.81 | .69917 | 490. | .1219 | .01401 | 12.82 | .52422 |
| 500. | .0895 | .01424 | 13.03 | .72560 | 500. | .1194 | .01425 | 13.03 | .54406 |
| 510. | .0878 | .01449 | 13.24 | .75240 | 510. | .1171 | .01450 | 13.24 | .56418 |
| 520. | .0861 | .01473 | 13.45 | .77956 | 520. | .1148 | .01474 | 13.45 | .58457 |
| 530. | .0845 | .01497 | 13.66 | .80708 | 530. | .1126 | .01498 | 13.66 | .60523 |
| 540. | .0829 | .01522 | 13.86 | .83494 | 540. | .1105 | .01523 | 13.86 | .62614 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 25. psia Isobar | | | | | 30. psia Isobar | | | | |
|-----------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-----------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. F | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 97.882 | 81.5498 | .11772 | 326.42 | .00363 | * 97.882 | 81.5512 | .11772 | 326.49 | .00363 |
| 100. | 81.2282 | .11644 | 318.00 | .00340 | 100. | 81.2307 | .11645 | 318.10 | .00360 |
| 105. | 80.4672 | .11358 | 297.89 | .00354 | 105. | 80.4698 | .11358 | 297.97 | .00354 |
| 110. | 79.7022 | .11088 | 277.99 | .00349 | 110. | 79.7049 | .11089 | 278.07 | .00349 |
| 115. | 78.9322 | .10833 | 258.79 | .00344 | 115. | 78.9350 | .10834 | 258.86 | .00344 |
| 120. | 78.1564 | .10588 | 240.57 | .00340 | 120. | 78.1593 | .10589 | 240.64 | .00340 |
| 125. | 77.3739 | .10351 | 223.48 | .00335 | 125. | 77.3770 | .10352 | 223.55 | .00335 |
| 130. | 76.5840 | .10120 | 207.58 | .00331 | 130. | 76.5873 | .10121 | 207.65 | .00331 |
| 135. | 75.7860 | .09894 | 192.88 | .00327 | 135. | 75.7894 | .09895 | 192.93 | .00327 |
| 140. | 74.9791 | .09671 | 179.32 | .00323 | 140. | 74.9828 | .09672 | 179.37 | .00323 |
| 145. | 74.1625 | .09450 | 166.85 | .00318 | 145. | 74.1664 | .09451 | 166.90 | .00318 |
| 150. | 73.3354 | .09230 | 155.39 | .00314 | 150. | 73.3395 | .09231 | 155.44 | .00314 |
| 155. | 72.4966 | .09010 | 144.86 | .00309 | 155. | 72.5010 | .09011 | 144.91 | .00309 |
| 160. | 71.6450 | .08789 | 135.19 | .00304 | 160. | 71.6496 | .08791 | 135.23 | .00304 |
| 165. | 70.7791 | .08568 | 126.22 | .00299 | 165. | 70.7841 | .08569 | 126.34 | .00299 |
| 170. | 69.8973 | .08345 | 118.10 | .00293 | 170. | 69.9027 | .08347 | 118.14 | .00293 |
| * 172.076 | 69.5241 | .08252 | 114.88 | .00290 | * 172.076 | 69.5241 | .08252 | 114.88 | .00287 |
| * 172.076 | 69.558 | .08506 | 4.80 | .04600 | * 175.709 | 58.8743 | .08090 | 109.55 | .00286 |
| 175. | .4470 | .00515 | 4.89 | .04808 | 175. | .5395 | .00519 | 4.92 | .03940 |
| 180. | .4327 | .00530 | 5.03 | .05171 | 180. | .5242 | .00532 | 5.04 | .04204 |
| 185. | .4195 | .00544 | 5.17 | .05541 | 185. | .5077 | .00548 | 5.18 | .04513 |
| 190. | .4071 | .00551 | 5.32 | .05920 | 190. | .4924 | .00563 | 5.33 | .04838 |
| 195. | .3955 | .00577 | 5.46 | .06308 | 195. | .4781 | .00579 | 5.47 | .05166 |
| 200. | .3844 | .00593 | 5.60 | .06704 | 200. | .4646 | .00595 | 5.61 | .05499 |
| 205. | .3744 | .00609 | 5.74 | .07109 | 205. | .4520 | .00611 | 5.75 | .05840 |
| 210. | .3647 | .00625 | 5.89 | .07522 | 210. | .4401 | .00627 | 5.89 | .06186 |
| 215. | .3556 | .00641 | 6.03 | .07943 | 215. | .4289 | .00643 | 6.03 | .06542 |
| 220. | .3469 | .00657 | 6.17 | .08373 | 220. | .4183 | .00658 | 6.18 | .06903 |
| 225. | .3387 | .00673 | 6.31 | .08811 | 225. | .4082 | .00674 | 6.32 | .07271 |
| 230. | .3308 | .00688 | 6.45 | .09257 | 230. | .3987 | .00690 | 6.45 | .07645 |
| 235. | .3224 | .00704 | 6.59 | .09711 | 235. | .3896 | .00706 | 6.59 | .08026 |
| 240. | .3163 | .00720 | 6.72 | .10174 | 240. | .3809 | .00721 | 6.73 | .08414 |
| 245. | .3095 | .00736 | 6.86 | .10645 | 245. | .3727 | .00737 | 6.87 | .08808 |
| 250. | .3030 | .00751 | 7.00 | .11123 | 250. | .3648 | .00753 | 7.01 | .09210 |
| 255. | .2968 | .00767 | 7.14 | .11610 | 255. | .3572 | .00768 | 7.14 | .09617 |
| 260. | .2908 | .00782 | 7.27 | .12106 | 260. | .3500 | .00784 | 7.28 | .10032 |
| 265. | .2851 | .00798 | 7.41 | .12610 | 265. | .3431 | .00799 | 7.41 | .10454 |
| 270. | .2796 | .00813 | 7.54 | .13123 | 270. | .3364 | .00815 | 7.55 | .10884 |
| 275. | .2744 | .00829 | 7.68 | .13647 | 275. | .3300 | .00830 | 7.68 | .11322 |
| 280. | .2693 | .00844 | 7.81 | .14173 | 280. | .3239 | .00846 | 7.81 | .11762 |
| 285. | .2644 | .00858 | 7.94 | .14690 | 285. | .3180 | .00860 | 7.95 | .12194 |
| 290. | .2597 | .00873 | 8.07 | .15219 | 290. | .3123 | .00874 | 8.08 | .12636 |
| 295. | .2552 | .00887 | 8.20 | .15754 | 295. | .3068 | .00888 | 8.21 | .13085 |
| 300. | .2508 | .00901 | 8.33 | .16302 | 300. | .3015 | .00903 | 8.34 | .13541 |
| 310. | .2425 | .00930 | 8.59 | .17416 | 310. | .2915 | .00931 | 8.60 | .14472 |
| 320. | .2347 | .00958 | 8.85 | .18559 | 320. | .2821 | .00959 | 8.85 | .15426 |
| 330. | .2275 | .00986 | 9.10 | .19730 | 330. | .2733 | .00987 | 9.11 | .16404 |
| 340. | .2206 | .01014 | 9.35 | .20928 | 340. | .2651 | .01015 | 9.36 | .17405 |
| 350. | .2142 | .01041 | 9.60 | .22153 | 350. | .2573 | .01043 | 9.61 | .18427 |
| 360. | .2082 | .01068 | 9.85 | .23404 | 360. | .2500 | .01070 | 9.85 | .19471 |
| 370. | .2024 | .01095 | 10.09 | .24680 | 370. | .2432 | .01096 | 10.09 | .20537 |
| 380. | .1970 | .01122 | 10.33 | .25983 | 380. | .2366 | .01123 | 10.33 | .21624 |
| 390. | .1919 | .01148 | 10.57 | .27310 | 390. | .2305 | .01149 | 10.57 | .22732 |
| 400. | .1870 | .01174 | 10.80 | .28663 | 400. | .2246 | .01176 | 10.81 | .23861 |
| 410. | .1824 | .01200 | 11.04 | .30040 | 410. | .2191 | .01201 | 11.04 | .25010 |
| 420. | .1780 | .01226 | 11.27 | .31442 | 420. | .2138 | .01227 | 11.27 | .26180 |
| 430. | .1739 | .01252 | 11.50 | .32869 | 430. | .2087 | .01253 | 11.50 | .27371 |
| 440. | .1699 | .01277 | 11.72 | .34319 | 440. | .2035 | .01278 | 11.72 | .28591 |
| 450. | .1661 | .01302 | 11.95 | .35794 | 450. | .1994 | .01303 | 11.95 | .29811 |
| 460. | .1624 | .01327 | 12.17 | .37292 | 460. | .1950 | .01328 | 12.17 | .31061 |
| 470. | .1589 | .01352 | 12.39 | .38813 | 470. | .1908 | .01353 | 12.39 | .32330 |
| 480. | .1556 | .01377 | 12.60 | .40357 | 480. | .1868 | .01378 | 12.61 | .33618 |
| 490. | .1524 | .01402 | 12.82 | .41924 | 490. | .1829 | .01403 | 12.82 | .34925 |
| 500. | .1493 | .01426 | 13.03 | .43513 | 500. | .1792 | .01427 | 13.03 | .36250 |
| 510. | .1464 | .01451 | 13.24 | .45124 | 510. | .1757 | .01452 | 13.25 | .37594 |
| 520. | .1435 | .01475 | 13.45 | .46757 | 520. | .1723 | .01476 | 13.46 | .38956 |
| 530. | .1408 | .01499 | 13.66 | .48411 | 530. | .1690 | .01500 | 13.66 | .40336 |
| 540. | .1382 | .01524 | 13.87 | .50086 | 540. | .1659 | .01525 | 13.87 | .41732 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 35. psia Isobar | | | | | 40. psia Isobar | | | | |
|-----------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-----------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 97.896 | 81.5526 | .11773 | 326.56 | .00363 | * 97.903 | 81.5540 | .11773 | 326.63 | .00363 |
| 100. | 81.2333 | .11646 | 318.20 | .00360 | 100. | 81.2358 | .11647 | 318.29 | .00360 |
| 105. | 80.4723 | .11359 | 298.06 | .00354 | 105. | 80.4749 | .11360 | 298.15 | .00354 |
| 110. | 79.7076 | .11090 | 278.15 | .00349 | 110. | 79.7103 | .11091 | 278.23 | .00349 |
| 115. | 78.9379 | .10835 | 258.94 | .00344 | 115. | 78.9407 | .10836 | 259.01 | .00344 |
| 120. | 78.1623 | .10590 | 240.71 | .00340 | 120. | 78.1653 | .10591 | 240.78 | .00340 |
| 125. | 77.3801 | .10353 | 223.61 | .00336 | 125. | 77.3832 | .10354 | 223.68 | .00336 |
| 130. | 76.5906 | .10123 | 207.71 | .00331 | 130. | 76.5938 | .10124 | 207.77 | .00331 |
| 135. | 75.7929 | .09896 | 192.99 | .00327 | 135. | 75.7964 | .09898 | 193.05 | .00327 |
| 140. | 74.9864 | .09673 | 179.43 | .00323 | 140. | 74.9901 | .09675 | 179.48 | .00323 |
| 145. | 74.1703 | .09452 | 166.95 | .00318 | 145. | 74.1742 | .09454 | 167.00 | .00318 |
| 150. | 73.3436 | .09232 | 155.49 | .00314 | 150. | 73.3477 | .09234 | 155.54 | .00314 |
| 155. | 72.5053 | .09012 | 144.96 | .00309 | 155. | 72.5097 | .09014 | 145.00 | .00309 |
| 160. | 71.6543 | .08792 | 135.28 | .00304 | 160. | 71.6590 | .08794 | 135.33 | .00304 |
| 165. | 70.7891 | .08571 | 126.38 | .00298 | 165. | 70.7940 | .08573 | 126.43 | .00298 |
| 170. | 69.9080 | .08348 | 118.18 | .00293 | 170. | 69.9133 | .08350 | 118.23 | .00293 |
| 175. | 69.0091 | .08124 | 110.62 | .00287 | 175. | 69.0149 | .08126 | 110.66 | .00287 |
| * 178.910 | 68.2924 | .07947 | 105.10 | .00282 | 180. | 68.0963 | .07899 | 103.66 | .00280 |
| * 178.910 | .6223 | .00531 | 5.02 | .03453 | * 181.784 | 67.7633 | .07818 | 101.29 | .00278 |
| 180. | .6177 | .00534 | 5.05 | .03512 | * 181.784 | .7044 | .00542 | 5.11 | .03078 |
| 185. | .5977 | .00550 | 5.19 | .03785 | 185. | .6893 | .00552 | 5.20 | .03235 |
| 190. | .5791 | .00565 | 5.33 | .04064 | 190. | .6674 | .00567 | 5.34 | .03482 |
| 195. | .5619 | .00581 | 5.48 | .04348 | 195. | .6470 | .00583 | 5.49 | .03734 |
| 200. | .5458 | .00597 | 5.62 | .04638 | 200. | .6280 | .00599 | 5.63 | .03991 |
| 205. | .5306 | .00613 | 5.76 | .04933 | 205. | .6103 | .00614 | 5.77 | .04252 |
| 210. | .5165 | .00628 | 5.90 | .05234 | 210. | .5937 | .00630 | 5.91 | .04518 |
| 215. | .5031 | .00644 | 6.04 | .05540 | 215. | .5781 | .00646 | 6.05 | .04788 |
| 220. | .4904 | .00660 | 6.18 | .05852 | 220. | .5633 | .00662 | 6.19 | .05064 |
| 225. | .4785 | .00676 | 6.32 | .06170 | 225. | .5494 | .00677 | 6.33 | .05344 |
| 230. | .4671 | .00692 | 6.46 | .06493 | 230. | .5362 | .00693 | 6.47 | .05629 |
| 235. | .4563 | .00707 | 6.60 | .06822 | 235. | .5237 | .00709 | 6.61 | .05918 |
| 240. | .4461 | .00723 | 6.74 | .07156 | 240. | .5118 | .00725 | 6.74 | .06213 |
| 245. | .4363 | .00739 | 6.88 | .07496 | 245. | .5004 | .00740 | 6.88 | .06512 |
| 250. | .4270 | .00754 | 7.01 | .07842 | 250. | .4896 | .00756 | 7.02 | .06816 |
| 255. | .4181 | .00770 | 7.15 | .08193 | 255. | .4793 | .00771 | 7.15 | .07125 |
| 260. | .4095 | .00785 | 7.28 | .08550 | 260. | .4694 | .00787 | 7.29 | .07439 |
| 265. | .4014 | .00801 | 7.42 | .08914 | 265. | .4600 | .00802 | 7.43 | .07758 |
| 270. | .3935 | .00816 | 7.55 | .09284 | 270. | .4509 | .00818 | 7.56 | .08083 |
| 275. | .3860 | .00832 | 7.69 | .09662 | 275. | .4422 | .00833 | 7.69 | .08415 |
| 280. | .3788 | .00847 | 7.82 | .10040 | 280. | .4339 | .00848 | 7.83 | .08748 |
| 285. | .3718 | .00861 | 7.95 | .10411 | 285. | .4258 | .00862 | 7.96 | .09074 |
| 290. | .3651 | .00875 | 8.08 | .10791 | 290. | .4181 | .00877 | 8.09 | .09406 |
| 295. | .3586 | .00890 | 8.21 | .11176 | 295. | .4107 | .00891 | 8.22 | .09745 |
| 300. | .3524 | .00904 | 8.35 | .11568 | 300. | .4035 | .00905 | 8.35 | .10089 |
| 310. | .3406 | .00932 | 8.60 | .12368 | 310. | .3900 | .00934 | 8.61 | .10790 |
| 320. | .3296 | .00961 | 8.86 | .13188 | 320. | .3773 | .00962 | 8.86 | .11510 |
| 330. | .3193 | .00989 | 9.11 | .14028 | 330. | .3655 | .00990 | 9.12 | .12246 |
| 340. | .3097 | .01016 | 9.36 | .14888 | 340. | .3544 | .01017 | 9.37 | .13000 |
| 350. | .3006 | .01044 | 9.61 | .15766 | 350. | .3439 | .01045 | 9.62 | .13769 |
| 360. | .2920 | .01071 | 9.86 | .16662 | 360. | .3341 | .01072 | 9.86 | .14555 |
| 370. | .2840 | .01098 | 10.10 | .17577 | 370. | .3248 | .01099 | 10.10 | .15357 |
| 380. | .2763 | .01124 | 10.34 | .18511 | 380. | .3161 | .01125 | 10.34 | .16175 |
| 390. | .2691 | .01151 | 10.58 | .19462 | 390. | .3078 | .01152 | 10.58 | .17009 |
| 400. | .2623 | .01177 | 10.81 | .20431 | 400. | .2999 | .01178 | 10.81 | .17858 |
| 410. | .2557 | .01203 | 11.04 | .21417 | 410. | .2925 | .01204 | 11.05 | .18722 |
| 420. | .2496 | .01228 | 11.27 | .22422 | 420. | .2854 | .01229 | 11.28 | .19602 |
| 430. | .2437 | .01254 | 11.50 | .23443 | 430. | .2786 | .01255 | 11.51 | .20497 |
| 440. | .2381 | .01279 | 11.73 | .24482 | 440. | .2722 | .01280 | 11.73 | .21407 |
| 450. | .2327 | .01304 | 11.95 | .25537 | 450. | .2661 | .01305 | 11.95 | .22332 |
| 460. | .2276 | .01329 | 12.17 | .26610 | 460. | .2602 | .01330 | 12.18 | .23271 |
| 470. | .2227 | .01354 | 12.39 | .27698 | 470. | .2546 | .01355 | 12.39 | .24225 |
| 480. | .2180 | .01379 | 12.61 | .28804 | 480. | .2492 | .01380 | 12.61 | .25193 |
| 490. | .2135 | .01404 | 12.82 | .29925 | 490. | .2441 | .01405 | 12.83 | .26175 |
| 500. | .2092 | .01428 | 13.04 | .31062 | 500. | .2391 | .01429 | 13.04 | .27171 |
| 510. | .2050 | .01453 | 13.25 | .32215 | 510. | .2344 | .01454 | 13.25 | .28181 |
| 520. | .2011 | .01477 | 13.46 | .33384 | 520. | .2298 | .01478 | 13.46 | .29204 |
| 530. | .1972 | .01501 | 13.67 | .34567 | 530. | .2255 | .01502 | 13.67 | .30241 |
| 540. | .1935 | .01526 | 13.87 | .35766 | 540. | .2212 | .01527 | 13.87 | .31290 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 45. psia Isobar | | | | | 50. psia Isobar | | | | |
|-----------------|----------|---------------|---------------|---------------------|-----------------|----------|---------------|---------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | BTU/ft.h.R | micro-ib/ft.s | ft**2/h | R | lb/ft**3 | BTU/ft.h.R | micro-ib/ft.s | ft**2/h |
| * 97.910 | 81.5554 | .11774 | 326.71 | .00363 | * 97.918 | 81.5567 | .11774 | 326.78 | .00363 |
| 100. | 81.2383 | .11648 | 318.39 | .00360 | 100. | 81.2408 | .11649 | 318.49 | .00360 |
| 105. | 80.4775 | .11361 | 298.24 | .00354 | 105. | 80.4801 | .11362 | 298.33 | .00354 |
| 110. | 79.7130 | .11092 | 278.31 | .00349 | 110. | 79.7156 | .11093 | 278.40 | .00349 |
| 115. | 78.9435 | .10837 | 259.09 | .00344 | 115. | 78.9463 | .10838 | 259.16 | .00344 |
| 120. | 78.1682 | .10592 | 240.85 | .00340 | 120. | 78.1712 | .10593 | 240.92 | .00340 |
| 125. | 77.3863 | .10355 | 223.74 | .00336 | 125. | 77.3894 | .10356 | 223.81 | .00336 |
| 130. | 76.5971 | .10125 | 207.83 | .00331 | 130. | 76.6004 | .10126 | 207.90 | .00331 |
| 135. | 75.7998 | .09899 | 193.11 | .00327 | 135. | 75.8033 | .09900 | 193.17 | .00327 |
| 140. | 74.9937 | .09676 | 179.54 | .00323 | 140. | 74.9974 | .09677 | 179.60 | .00323 |
| 145. | 74.1780 | .09455 | 167.06 | .00318 | 145. | 74.1819 | .09456 | 167.11 | .00318 |
| 150. | 73.3518 | .09235 | 155.59 | .00314 | 150. | 73.3559 | .09236 | 155.64 | .00314 |
| 155. | 72.5141 | .09015 | 145.05 | .00309 | 155. | 72.5185 | .09017 | 145.10 | .00309 |
| 160. | 71.6636 | .08795 | 135.37 | .00304 | 160. | 71.6683 | .08797 | 135.42 | .00304 |
| 165. | 70.7990 | .08574 | 126.47 | .00298 | 165. | 70.8040 | .08576 | 126.51 | .00299 |
| 170. | 69.9187 | .08352 | 118.27 | .00293 | 170. | 69.9240 | .08353 | 118.31 | .00293 |
| 175. | 69.0206 | .08128 | 110.70 | .00287 | 175. | 69.0263 | .08129 | 110.74 | .00287 |
| 180. | 68.1025 | .07901 | 103.70 | .00280 | 180. | 68.1087 | .07903 | 103.74 | .00280 |
| * 184.400 | 67.2759 | .07700 | 97.97 | .00274 | 185. | 67.1683 | .07674 | 97.25 | .00274 |
| * 184.400 | .7861 | .00552 | 5.19 | .02779 | * 186.808 | 66.8221 | .07591 | 95.02 | .00271 |
| 185. | .7829 | .00554 | 5.21 | .02805 | * 186.808 | .8674 | .00562 | 5.27 | .02534 |
| 190. | .7572 | .00569 | 5.35 | .03029 | 190. | .8488 | .00571 | 5.36 | .02665 |
| 195. | .7336 | .00585 | 5.49 | .03256 | 195. | .8216 | .00587 | 5.50 | .02872 |
| 200. | .7116 | .00601 | 5.64 | .03487 | 200. | .7964 | .00602 | 5.64 | .03083 |
| 205. | .6911 | .00616 | 5.78 | .03721 | 205. | .7730 | .00618 | 5.79 | .03296 |
| 210. | .6719 | .00632 | 5.92 | .03960 | 210. | .7511 | .00634 | 5.93 | .03513 |
| 215. | .6539 | .00648 | 6.06 | .04203 | 215. | .7306 | .00649 | 6.07 | .03734 |
| 220. | .6370 | .00663 | 6.20 | .04450 | 220. | .7114 | .00665 | 6.21 | .03958 |
| 225. | .6210 | .00679 | 6.34 | .04701 | 225. | .6933 | .00681 | 6.34 | .04186 |
| 230. | .6059 | .00695 | 6.48 | .04956 | 230. | .6762 | .00696 | 6.48 | .04417 |
| 235. | .5915 | .00710 | 6.61 | .05215 | 235. | .6600 | .00712 | 6.62 | .04652 |
| 240. | .5779 | .00726 | 6.75 | .05478 | 240. | .6446 | .00728 | 6.76 | .04890 |
| 245. | .5650 | .00742 | 6.89 | .05746 | 245. | .6300 | .00743 | 6.90 | .05132 |
| 250. | .5527 | .00757 | 7.03 | .06017 | 250. | .6162 | .00759 | 7.03 | .05378 |
| 255. | .5409 | .00773 | 7.16 | .06293 | 255. | .6029 | .00774 | 7.17 | .05628 |
| 260. | .5297 | .00788 | 7.30 | .06574 | 260. | .5903 | .00790 | 7.30 | .05882 |
| 265. | .5189 | .00804 | 7.43 | .06859 | 265. | .5782 | .00805 | 7.44 | .06140 |
| 270. | .5086 | .00819 | 7.57 | .07150 | 270. | .5666 | .00820 | 7.57 | .06402 |
| 275. | .4987 | .00835 | 7.70 | .07446 | 275. | .5555 | .00836 | 7.70 | .06670 |
| 280. | .4893 | .00850 | 7.83 | .07743 | 280. | .5449 | .00851 | 7.84 | .06939 |
| 285. | .4801 | .00864 | 7.96 | .08033 | 285. | .5347 | .00865 | 7.97 | .07200 |
| 290. | .4714 | .00878 | 8.10 | .08330 | 290. | .5249 | .00879 | 8.10 | .07468 |
| 295. | .4630 | .00892 | 8.23 | .08631 | 295. | .5154 | .00893 | 8.23 | .07740 |
| 300. | .4548 | .00906 | 8.36 | .08938 | 300. | .5063 | .00908 | 8.36 | .08017 |
| 310. | .4495 | .00935 | 8.61 | .09563 | 310. | .4891 | .00936 | 8.62 | .08581 |
| 320. | .4251 | .00963 | 8.87 | .10204 | 320. | .4731 | .00964 | 8.87 | .09159 |
| 330. | .4117 | .00991 | 9.12 | .10860 | 330. | .4581 | .00992 | 9.13 | .09751 |
| 340. | .3992 | .01019 | 9.37 | .11531 | 340. | .4441 | .01020 | 9.38 | .10356 |
| 350. | .3874 | .01046 | 9.62 | .12217 | 350. | .4309 | .01047 | 9.62 | .10974 |
| 360. | .3763 | .01073 | 9.86 | .12917 | 360. | .4185 | .01074 | 9.87 | .11605 |
| 370. | .3658 | .01100 | 10.11 | .13631 | 370. | .4068 | .01101 | 10.11 | .12249 |
| 380. | .3559 | .01126 | 10.35 | .14359 | 380. | .3958 | .01127 | 10.35 | .12905 |
| 390. | .3465 | .01153 | 10.58 | .15101 | 390. | .3854 | .01154 | 10.59 | .13574 |
| 400. | .3377 | .01179 | 10.82 | .15857 | 400. | .3755 | .01180 | 10.82 | .14256 |
| 410. | .3293 | .01205 | 11.05 | .16626 | 410. | .3661 | .01206 | 11.05 | .14949 |
| 420. | .3213 | .01230 | 11.28 | .17409 | 420. | .3572 | .01231 | 11.28 | .15655 |
| 430. | .3136 | .01256 | 11.51 | .18206 | 430. | .3487 | .01257 | 11.51 | .16372 |
| 440. | .3064 | .01281 | 11.73 | .19015 | 440. | .3406 | .01282 | 11.74 | .17102 |
| 450. | .2995 | .01306 | 11.96 | .19838 | 450. | .3329 | .01307 | 11.96 | .17844 |
| 460. | .2928 | .01331 | 12.18 | .20674 | 460. | .3255 | .01332 | 12.18 | .18597 |
| 470. | .2865 | .01356 | 12.40 | .21523 | 470. | .3185 | .01357 | 12.40 | .19361 |
| 480. | .2805 | .01381 | 12.61 | .22384 | 480. | .3117 | .01382 | 12.62 | .20138 |
| 490. | .2747 | .01406 | 12.83 | .23258 | 490. | .3053 | .01407 | 12.83 | .20925 |
| 500. | .2691 | .01430 | 13.04 | .24145 | 500. | .2991 | .01431 | 13.05 | .21723 |
| 510. | .2638 | .01455 | 13.25 | .25043 | 510. | .2931 | .01456 | 13.26 | .22533 |
| 520. | .2586 | .01479 | 13.46 | .25953 | 520. | .2874 | .01480 | 13.47 | .23353 |
| 530. | .2537 | .01503 | 13.67 | .26876 | 530. | .2819 | .01504 | 13.67 | .24183 |
| 540. | .2489 | .01528 | 13.88 | .27809 | 540. | .2767 | .01529 | 13.88 | .25024 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 100. psia Isobar | | | | | 150. psia Isobar | | | | |
|------------------|----------|------------|-----------|-------------|------------------|----------|------------|-----------|-------------|
| Temp. | Density | Thermal | Viscosity | Thermal | Temp. | Density | Thermal | Viscosity | Thermal |
| R | lb/ft**3 | Cond. | micro- | Diffusivity | R | lb/ft**3 | Cond. | micro- | Diffusivity |
| | | 8TU/ft.h.R | lb/ft.s | ft**2/h | | | 8TU/ft.h.R | lb/ft.s | ft**2/h |
| * 97.989 | 81.5707 | .11779 | 327.50 | .00363 | * 98.060 | 81.5846 | .11784 | 328.22 | .00363 |
| 100. | 81.2658 | .11658 | 319.45 | .00361 | 100. | 81.2908 | .11667 | 320.42 | .00361 |
| 105. | 80.5060 | .11372 | 299.22 | .00355 | 105. | 80.5318 | .11381 | 300.11 | .00355 |
| 110. | 79.7425 | .11103 | 279.22 | .00349 | 110. | 79.7694 | .11112 | 280.04 | .00350 |
| 115. | 78.9744 | .10848 | 259.93 | .00345 | 115. | 79.0025 | .10858 | 260.69 | .00345 |
| 120. | 78.2006 | .10603 | 241.63 | .00340 | 120. | 78.2301 | .10614 | 242.34 | .00341 |
| 125. | 77.4204 | .10367 | 224.48 | .00336 | 125. | 77.4514 | .10378 | 225.14 | .00336 |
| 130. | 76.6331 | .10137 | 208.52 | .00332 | 130. | 76.6657 | .10148 | 209.14 | .00332 |
| 135. | 75.8378 | .09912 | 193.76 | .00328 | 135. | 75.8722 | .09923 | 194.35 | .00328 |
| 140. | 75.0339 | .09689 | 180.15 | .00323 | 140. | 75.0703 | .09702 | 180.71 | .00324 |
| 145. | 74.2206 | .09469 | 167.64 | .00319 | 145. | 74.2591 | .09482 | 168.17 | .00319 |
| 150. | 73.3970 | .09250 | 156.14 | .00314 | 150. | 73.4379 | .09263 | 156.64 | .00315 |
| 155. | 72.5621 | .09031 | 145.58 | .00310 | 155. | 72.6055 | .09045 | 146.06 | .00310 |
| 160. | 71.7147 | .08811 | 135.88 | .00304 | 160. | 71.7610 | .08826 | 136.35 | .00305 |
| 165. | 70.8536 | .08591 | 126.96 | .00299 | 165. | 70.9029 | .08606 | 127.41 | .00300 |
| 170. | 69.9770 | .08370 | 118.75 | .00294 | 170. | 70.0298 | .08386 | 119.18 | .00294 |
| 175. | 69.0832 | .08146 | 111.17 | .00288 | 175. | 69.1398 | .08163 | 111.59 | .00288 |
| 180. | 68.1699 | .07921 | 104.16 | .00281 | 180. | 68.2308 | .07939 | 104.57 | .00282 |
| 185. | 67.2345 | .07693 | 97.66 | .00275 | 185. | 67.3002 | .07712 | 98.07 | .00276 |
| 190. | 66.2739 | .07462 | 91.62 | .00268 | 190. | 66.3451 | .07482 | 92.02 | .00269 |
| 195. | 65.2842 | .07229 | 85.99 | .00260 | 195. | 65.3618 | .07250 | 86.39 | .00261 |
| 200. | 64.2609 | .06991 | 80.71 | .00252 | 200. | 64.3459 | .07014 | 81.11 | .00253 |
| * 204.420 | 63.3238 | .06778 | 76.31 | .00244 | 205. | 63.2921 | .06774 | 76.16 | .00244 |
| * 204.420 | 1.6730 | .00636 | 5.87 | .01351 | 210. | 62.1936 | .06529 | 71.48 | .00235 |
| 205. | 1.6659 | .00638 | 5.88 | .01365 | 215. | 61.0419 | .06279 | 67.04 | .00225 |
| 210. | 1.6075 | .00652 | 6.02 | .01487 | * 216.364 | 60.7172 | .06209 | 65.87 | .00222 |
| 215. | 1.5543 | .00667 | 6.16 | .01609 | * 216.364 | 2.4880 | .00694 | 6.31 | .00905 |
| 220. | 1.5055 | .00683 | 6.29 | .01732 | 220. | 2.4174 | .00704 | 6.41 | .00973 |
| 225. | 1.4605 | .00698 | 6.43 | .01857 | 225. | 2.3293 | .00718 | 6.54 | .01065 |
| 230. | 1.4187 | .00713 | 6.57 | .01982 | 230. | 2.2499 | .00732 | 6.67 | .01156 |
| 235. | 1.3798 | .00728 | 6.70 | .02108 | 235. | 2.1775 | .00747 | 6.80 | .01248 |
| 240. | 1.3434 | .00743 | 6.84 | .02236 | 240. | 2.1111 | .00762 | 6.93 | .01340 |
| 245. | 1.3093 | .00759 | 6.97 | .02365 | 245. | 2.0498 | .00776 | 7.07 | .01433 |
| 250. | 1.2771 | .00774 | 7.11 | .02495 | 250. | 1.9929 | .00791 | 7.20 | .01526 |
| 255. | 1.2468 | .00789 | 7.24 | .02627 | 255. | 1.9399 | .00806 | 7.33 | .01620 |
| 260. | 1.2180 | .00804 | 7.38 | .02761 | 260. | 1.8903 | .00821 | 7.46 | .01714 |
| 265. | 1.1908 | .00820 | 7.51 | .02897 | 265. | 1.8438 | .00837 | 7.59 | .01810 |
| 270. | 1.1649 | .00835 | 7.64 | .03035 | 270. | 1.7999 | .00852 | 7.72 | .01908 |
| 275. | 1.1403 | .00851 | 7.77 | .03176 | 275. | 1.7585 | .00868 | 7.85 | .02007 |
| 280. | 1.1168 | .00866 | 7.90 | .03316 | 280. | 1.7193 | .00883 | 7.98 | .02105 |
| 285. | 1.0943 | .00879 | 8.03 | .03450 | 285. | 1.6821 | .00895 | 8.11 | .02196 |
| 290. | 1.0729 | .00893 | 8.16 | .03587 | 290. | 1.6467 | .00908 | 8.24 | .02290 |
| 295. | 1.0523 | .00907 | 8.29 | .03727 | 295. | 1.6130 | .00921 | 8.36 | .02386 |
| 300. | 1.0326 | .00921 | 8.42 | .03869 | 300. | 1.5808 | .00935 | 8.49 | .02484 |
| 310. | .9955 | .00948 | 8.68 | .04158 | 310. | 1.5207 | .00962 | 8.74 | .02682 |
| 320. | .9612 | .00976 | 8.93 | .04455 | 320. | 1.4656 | .00989 | 8.99 | .02884 |
| 330. | .9294 | .01004 | 9.18 | .04757 | 330. | 1.4147 | .01016 | 9.24 | .03091 |
| 340. | .8997 | .01031 | 9.43 | .05066 | 340. | 1.3675 | .01043 | 9.48 | .03301 |
| 350. | .8720 | .01058 | 9.67 | .05382 | 350. | 1.3237 | .01070 | 9.73 | .03516 |
| 360. | .8460 | .01085 | 9.92 | .05703 | 360. | 1.2828 | .01096 | 9.97 | .03734 |
| 370. | .8216 | .01112 | 10.16 | .06030 | 370. | 1.2446 | .01123 | 10.21 | .03956 |
| 380. | .7986 | .01138 | 10.39 | .06364 | 380. | 1.2087 | .01149 | 10.44 | .04182 |
| 390. | .7770 | .01164 | 10.63 | .06703 | 390. | 1.1750 | .01175 | 10.68 | .04412 |
| 400. | .7565 | .01190 | 10.86 | .07049 | 400. | 1.1432 | .01201 | 10.91 | .04646 |
| 410. | .7371 | .01216 | 11.09 | .07401 | 410. | 1.1132 | .01226 | 11.14 | .04884 |
| 420. | .7188 | .01242 | 11.32 | .07758 | 420. | 1.0849 | .01252 | 11.36 | .05125 |
| 430. | .7013 | .01267 | 11.55 | .08121 | 430. | 1.0580 | .01277 | 11.59 | .05370 |
| 440. | .6847 | .01292 | 11.77 | .08491 | 440. | 1.0324 | .01302 | 11.81 | .05619 |
| 450. | .6689 | .01317 | 11.99 | .08866 | 450. | 1.0082 | .01327 | 12.03 | .05872 |
| 460. | .6539 | .01342 | 12.21 | .09246 | 460. | .9850 | .01352 | 12.25 | .06129 |
| 470. | .6395 | .01367 | 12.43 | .09633 | 470. | .9630 | .01377 | 12.47 | .06389 |
| 480. | .6257 | .01392 | 12.65 | .10025 | 480. | .9420 | .01402 | 12.68 | .06653 |
| 490. | .6126 | .01417 | 12.86 | .10422 | 490. | .9219 | .01426 | 12.90 | .06921 |
| 500. | .6000 | .01441 | 13.07 | .10825 | 500. | .9027 | .01451 | 13.11 | .07192 |
| 510. | .5879 | .01465 | 13.28 | .11234 | 510. | .8842 | .01475 | 13.32 | .07467 |
| 520. | .5763 | .01490 | 13.49 | .11647 | 520. | .8666 | .01499 | 13.52 | .07745 |
| 530. | .5652 | .01514 | 13.70 | .12066 | 530. | .8496 | .01523 | 13.73 | .08026 |
| 540. | .5545 | .01538 | 13.90 | .12490 | 540. | .8334 | .01547 | 13.93 | .08311 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Enor. Units.

| 200. psia Isobar | | | | | 250. psia Isobar | | | | |
|------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. P | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. P | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 98.131 | 81.5985 | .11788 | 228.94 | .00344 | * 98.202 | 81.6124 | .11793 | 229.65 | .00364 |
| 100. | 81.3157 | .11676 | 321.39 | .00361 | 100. | 81.3406 | .11685 | 322.36 | .00361 |
| 105. | 80.5675 | .11390 | 301.00 | .00355 | 105. | 80.5832 | .11400 | 301.89 | .00355 |
| 110. | 79.7962 | .11122 | 280.86 | .00350 | 110. | 79.8229 | .11132 | 281.58 | .00350 |
| 115. | 79.0304 | .10868 | 261.45 | .00345 | 115. | 79.0583 | .10878 | 262.22 | .00345 |
| 120. | 78.2594 | .10624 | 243.05 | .00341 | 120. | 78.2886 | .10634 | 243.76 | .00341 |
| 125. | 77.4822 | .10389 | 225.80 | .00337 | 125. | 77.5130 | .10399 | 226.47 | .00337 |
| 130. | 76.6982 | .10160 | 209.77 | .00333 | 130. | 76.7305 | .10171 | 210.39 | .00333 |
| 135. | 75.9065 | .09935 | 194.93 | .00328 | 135. | 75.9407 | .09947 | 195.52 | .00329 |
| 140. | 75.1065 | .09714 | 181.26 | .00324 | 140. | 75.1427 | .09725 | 181.82 | .00325 |
| 145. | 74.2975 | .09494 | 168.49 | .00320 | 145. | 74.3357 | .09505 | 169.22 | .00320 |
| 150. | 73.4785 | .09276 | 157.15 | .00315 | 150. | 73.5191 | .09290 | 157.65 | .00316 |
| 155. | 72.6487 | .09059 | 146.55 | .00311 | 155. | 72.6918 | .09072 | 147.03 | .00311 |
| 160. | 71.8070 | .08841 | 136.81 | .00306 | 160. | 71.8527 | .08855 | 137.27 | .00306 |
| 165. | 70.9519 | .08622 | 127.85 | .00301 | 165. | 71.0007 | .08637 | 128.30 | .00301 |
| 170. | 70.0822 | .08402 | 119.61 | .00295 | 170. | 70.1343 | .08418 | 120.04 | .00296 |
| 175. | 69.1960 | .08180 | 112.01 | .00289 | 175. | 69.2518 | .08197 | 112.43 | .00290 |
| 180. | 68.2912 | .07957 | 104.98 | .00283 | 180. | 68.3511 | .07974 | 105.39 | .00284 |
| 185. | 67.3654 | .07731 | 98.47 | .00277 | 185. | 67.4300 | .07749 | 98.87 | .00277 |
| 190. | 66.4157 | .07502 | 92.42 | .00270 | 190. | 66.4856 | .07522 | 92.82 | .00271 |
| 195. | 65.4386 | .07271 | 86.78 | .00262 | 195. | 65.5147 | .07292 | 87.18 | .00263 |
| 200. | 64.4300 | .07036 | 81.51 | .00254 | 200. | 64.5131 | .07058 | 81.90 | .00255 |
| 205. | 63.3847 | .06797 | 76.56 | .00246 | 205. | 63.4761 | .06821 | 76.95 | .00247 |
| 210. | 62.2963 | .06554 | 71.88 | .00237 | 210. | 62.3976 | .06580 | 72.29 | .00238 |
| 215. | 61.1570 | .06306 | 67.46 | .00227 | 215. | 61.2707 | .06334 | 67.87 | .00228 |
| 220. | 59.9563 | .06052 | 63.23 | .00216 | 220. | 60.0842 | .06082 | 63.66 | .00218 |
| 225. | 58.6805 | .05791 | 59.17 | .00205 | 225. | 58.8269 | .05824 | 59.62 | .00207 |
| * 225.697 | 58.4958 | .05754 | 58.62 | .00203 | 230. | 57.4811 | .05557 | 55.71 | .00195 |
| * 225.697 | 3.3293 | .00746 | 6.69 | .00664 | * 233.478 | 56.4800 | .05366 | 53.05 | .00185 |
| 230. | 3.2074 | .00757 | 6.80 | .00731 | * 233.478 | 4.2086 | .00797 | 7.05 | .00510 |
| 235. | 3.0819 | .00770 | 6.92 | .00807 | 235. | 4.1454 | .00800 | 7.08 | .00531 |
| 240. | 2.9701 | .00784 | 7.05 | .00883 | 240. | 3.9584 | .00812 | 7.20 | .00600 |
| 245. | 2.8694 | .00798 | 7.18 | .00959 | 245. | 3.7962 | .00824 | 7.31 | .00667 |
| 250. | 2.7778 | .00812 | 7.30 | .01035 | 250. | 3.6532 | .00837 | 7.43 | .00734 |
| 255. | 2.6939 | .00826 | 7.43 | .01110 | 255. | 3.5253 | .00851 | 7.55 | .00799 |
| 260. | 2.6165 | .00841 | 7.56 | .01186 | 260. | 3.4098 | .00865 | 7.68 | .00865 |
| 265. | 2.5448 | .00856 | 7.69 | .01263 | 265. | 3.3044 | .00879 | 7.80 | .00931 |
| 270. | 2.4780 | .00872 | 7.81 | .01341 | 270. | 3.2076 | .00895 | 7.92 | .00998 |
| 275. | 2.4155 | .00888 | 7.94 | .01420 | 275. | 3.1182 | .00912 | 8.04 | .01066 |
| 280. | 2.3569 | .00903 | 8.07 | .01497 | 280. | 3.0352 | .00926 | 8.17 | .01132 |
| 285. | 2.3016 | .00913 | 8.19 | .01568 | 285. | 2.9577 | .00934 | 8.29 | .01189 |
| 290. | 2.2495 | .00925 | 8.32 | .01640 | 290. | 2.8852 | .00944 | 8.41 | .01249 |
| 295. | 2.2002 | .00937 | 8.44 | .01714 | 295. | 2.8171 | .00955 | 8.53 | .01310 |
| 300. | 2.1533 | .00950 | 8.57 | .01789 | 300. | 2.7528 | .00967 | 8.66 | .01372 |
| 310. | 2.0665 | .00976 | 8.82 | .01942 | 310. | 2.6346 | .00992 | 8.90 | .01498 |
| 320. | 1.9874 | .01002 | 9.06 | .02098 | 320. | 2.5281 | .01017 | 9.14 | .01626 |
| 330. | 1.9150 | .01029 | 9.31 | .02257 | 330. | 2.4313 | .01043 | 9.38 | .01756 |
| 340. | 1.8483 | .01055 | 9.55 | .02418 | 340. | 2.3428 | .01069 | 9.62 | .01888 |
| 350. | 1.7867 | .01082 | 9.79 | .02582 | 350. | 2.2615 | .01095 | 9.86 | .02022 |
| 360. | 1.7295 | .01108 | 10.03 | .02749 | 360. | 2.1863 | .01121 | 10.09 | .02158 |
| 370. | 1.6762 | .01134 | 10.26 | .02919 | 370. | 2.1166 | .01146 | 10.32 | .02296 |
| 380. | 1.6264 | .01160 | 10.50 | .03091 | 380. | 2.0518 | .01172 | 10.56 | .02436 |
| 390. | 1.5797 | .01186 | 10.73 | .03266 | 390. | 1.9912 | .01197 | 10.78 | .02579 |
| 400. | 1.5358 | .01212 | 10.96 | .03444 | 400. | 1.9344 | .01223 | 11.01 | .02723 |
| 410. | 1.4945 | .01237 | 11.19 | .03625 | 410. | 1.8811 | .01248 | 11.24 | .02870 |
| 420. | 1.4555 | .01262 | 11.41 | .03808 | 420. | 1.8309 | .01273 | 11.46 | .03019 |
| 430. | 1.4187 | .01288 | 11.63 | .03995 | 430. | 1.7835 | .01298 | 11.68 | .03169 |
| 440. | 1.3837 | .01313 | 11.86 | .04184 | 440. | 1.7387 | .01323 | 11.90 | .03322 |
| 450. | 1.3504 | .01338 | 12.07 | .04376 | 450. | 1.6963 | .01348 | 12.12 | .03478 |
| 460. | 1.3191 | .01362 | 12.29 | .04570 | 460. | 1.6560 | .01373 | 12.34 | .03635 |
| 470. | 1.2891 | .01387 | 12.51 | .04767 | 470. | 1.6177 | .01397 | 12.55 | .03794 |
| 480. | 1.2605 | .01412 | 12.72 | .04967 | 480. | 1.5813 | .01422 | 12.76 | .03956 |
| 490. | 1.2332 | .01436 | 12.93 | .05170 | 490. | 1.5465 | .01446 | 12.97 | .04120 |
| 500. | 1.2071 | .01460 | 13.14 | .05375 | 500. | 1.5134 | .01470 | 13.18 | .04285 |
| 510. | 1.1822 | .01485 | 13.35 | .05583 | 510. | 1.4817 | .01494 | 13.39 | .04453 |
| 520. | 1.1583 | .01509 | 13.56 | .05793 | 520. | 1.4514 | .01518 | 13.59 | .04623 |
| 530. | 1.1354 | .01533 | 13.76 | .06006 | 530. | 1.4224 | .01542 | 13.80 | .04794 |
| 540. | 1.1134 | .01557 | 13.97 | .06222 | 540. | 1.3945 | .01566 | 14.00 | .04968 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 300. psia Isohar | | | | | 350. psia Isohar | | | | |
|------------------|----------|---------------|-----------|---------------------|------------------|----------|---------------|-----------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | BTU/ft.h.R | lb/ft.s | ft**2/h | R | lb/ft**3 | BTU/ft.h.R | lb/ft.s | ft**2/h |
| * 98.274 | 81.6263 | .11798 | 330.37 | .00364 | * 98.345 | 81.6401 | .11803 | 331.09 | .00364 |
| 100. | 81.3654 | .11695 | 323.33 | .00362 | 100. | 81.3902 | .11704 | 324.31 | .00362 |
| 105. | 80.6089 | .11409 | 302.78 | .00356 | 105. | 80.6345 | .11418 | 303.68 | .00356 |
| 110. | 79.8495 | .11141 | 282.51 | .00351 | 110. | 79.8761 | .11151 | 283.33 | .00351 |
| 115. | 79.0862 | .10887 | 262.98 | .00346 | 115. | 79.1140 | .10897 | 263.74 | .00346 |
| 120. | 78.3178 | .10645 | 244.47 | .00342 | 120. | 78.3469 | .10655 | 245.19 | .00342 |
| 125. | 77.5436 | .10410 | 227.13 | .00337 | 125. | 77.5742 | .10421 | 227.80 | .00338 |
| 130. | 76.7628 | .10182 | 211.01 | .00333 | 130. | 76.7950 | .10193 | 211.64 | .00334 |
| 135. | 75.9747 | .09958 | 196.11 | .00329 | 135. | 76.0087 | .09970 | 195.70 | .00330 |
| 140. | 75.1786 | .09738 | 182.38 | .00325 | 140. | 75.2145 | .09750 | 182.93 | .00326 |
| 145. | 74.3738 | .09520 | 169.75 | .00321 | 145. | 74.4118 | .09532 | 170.28 | .00321 |
| 150. | 73.5594 | .09303 | 158.15 | .00316 | 150. | 73.5996 | .09316 | 158.65 | .00317 |
| 155. | 72.7346 | .09086 | 147.51 | .00312 | 155. | 72.7773 | .09100 | 147.99 | .00312 |
| 160. | 71.8983 | .08870 | 137.73 | .00307 | 160. | 71.9436 | .08884 | 138.19 | .00307 |
| 165. | 71.0493 | .08652 | 128.74 | .00302 | 165. | 71.0975 | .08667 | 129.19 | .00302 |
| 170. | 70.1861 | .08434 | 120.47 | .00296 | 170. | 70.2376 | .08450 | 120.90 | .00297 |
| 175. | 69.3072 | .08214 | 112.84 | .00291 | 175. | 69.3624 | .08230 | 113.25 | .00291 |
| 180. | 68.4107 | .07992 | 105.80 | .00285 | 180. | 68.4698 | .08009 | 106.20 | .00286 |
| 185. | 67.4941 | .07768 | 99.27 | .00278 | 185. | 67.5578 | .07786 | 99.67 | .00279 |
| 190. | 66.5550 | .07541 | 93.21 | .00271 | 190. | 66.6237 | .07561 | 93.61 | .00272 |
| 195. | 65.5900 | .07312 | 87.57 | .00264 | 195. | 65.6645 | .07333 | 87.96 | .00265 |
| 200. | 64.5953 | .07080 | 82.29 | .00257 | 200. | 64.6766 | .07102 | 82.68 | .00258 |
| 205. | 63.5663 | .06845 | 77.35 | .00248 | 205. | 63.6555 | .06868 | 77.74 | .00250 |
| 210. | 62.4974 | .06605 | 72.68 | .00240 | 210. | 62.5958 | .06630 | 73.08 | .00241 |
| 215. | 61.3815 | .06361 | 68.27 | .00230 | 215. | 61.4910 | .06388 | 68.58 | .00232 |
| 220. | 60.2096 | .06111 | 64.08 | .00220 | 220. | 60.3326 | .06140 | 64.49 | .00222 |
| 225. | 58.9699 | .05856 | 60.06 | .00209 | 225. | 59.1098 | .05887 | 60.49 | .00211 |
| 230. | 57.6468 | .05593 | 56.18 | .00197 | 230. | 57.8081 | .05627 | 56.63 | .00200 |
| 235. | 56.2178 | .05320 | 52.39 | .00184 | 235. | 56.4075 | .05359 | 52.88 | .00187 |
| 240. | 54.6495 | .05036 | 48.66 | .00169 | 240. | 54.8784 | .05081 | 49.19 | .00173 |
| * 240.211 | 54.5797 | .05024 | 48.50 | .00169 | 245. | 53.1743 | .04788 | 45.50 | .00157 |
| * 240.211 | 5.1358 | .00851 | 7.39 | .00402 | * 246.180 | 52.7390 | .04717 | 44.62 | .00153 |
| 245. | 4.8799 | .00859 | 7.49 | .00453 | * 246.180 | 5.1261 | .00911 | 7.74 | .00321 |
| 250. | 4.6541 | .00870 | 7.59 | .00526 | 250. | 5.8451 | .00914 | 7.80 | .00359 |
| 255. | 4.4598 | .00881 | 7.70 | .00587 | 255. | 5.5400 | .00922 | 7.89 | .00428 |
| 260. | 4.2891 | .00894 | 7.82 | .00647 | 260. | 5.2845 | .00932 | 7.99 | .00486 |
| 265. | 4.1371 | .00908 | 7.93 | .00707 | 265. | 5.0645 | .00945 | 8.09 | .00543 |
| 270. | 4.0001 | .00923 | 8.05 | .00767 | 270. | 4.8715 | .00959 | 8.20 | .00599 |
| 275. | 3.8756 | .00941 | 8.16 | .00829 | 275. | 4.6997 | .00977 | 8.30 | .00657 |
| 280. | 3.7614 | .00954 | 8.28 | .00887 | 280. | 4.5449 | .00989 | 8.41 | .00711 |
| 285. | 3.6561 | .00959 | 8.40 | .00936 | 285. | 4.4042 | .00989 | 8.52 | .00754 |
| 290. | 3.5585 | .00966 | 8.52 | .00987 | 290. | 4.2753 | .00993 | 8.64 | .00799 |
| 295. | 3.4676 | .00976 | 8.64 | .01039 | 295. | 4.1564 | .01000 | 8.75 | .00845 |
| 300. | 3.3825 | .00986 | 8.75 | .01092 | 300. | 4.0462 | .01008 | 8.86 | .00892 |
| 310. | 3.2275 | .01009 | 8.99 | .01200 | 310. | 3.8476 | .01029 | 9.09 | .00988 |
| 320. | 3.0892 | .01033 | 9.23 | .01310 | 320. | 3.6726 | .01051 | 9.32 | .01085 |
| 330. | 2.9648 | .01058 | 9.46 | .01421 | 330. | 3.5167 | .01074 | 9.55 | .01183 |
| 340. | 2.8518 | .01083 | 9.70 | .01534 | 340. | 3.3763 | .01098 | 9.78 | .01281 |
| 350. | 2.7487 | .01108 | 9.93 | .01648 | 350. | 3.2489 | .01123 | 10.01 | .01381 |
| 360. | 2.6538 | .01134 | 10.16 | .01764 | 360. | 3.1325 | .01147 | 10.24 | .01483 |
| 370. | 2.5663 | .01159 | 10.39 | .01881 | 370. | 3.0255 | .01172 | 10.45 | .01585 |
| 380. | 2.4851 | .01184 | 10.62 | .02000 | 380. | 2.9268 | .01197 | 10.69 | .01689 |
| 390. | 2.4096 | .01209 | 10.85 | .02121 | 390. | 2.8352 | .01222 | 10.91 | .01793 |
| 400. | 2.3390 | .01235 | 11.07 | .02243 | 400. | 2.7499 | .01247 | 11.13 | .01900 |
| 410. | 2.2730 | .01260 | 11.29 | .02367 | 410. | 2.6703 | .01271 | 11.35 | .02007 |
| 420. | 2.2109 | .01284 | 11.51 | .02492 | 420. | 2.5957 | .01296 | 11.57 | .02116 |
| 430. | 2.1525 | .01309 | 11.73 | .02619 | 430. | 2.5256 | .01321 | 11.79 | .02227 |
| 440. | 2.0977 | .01334 | 11.95 | .02748 | 440. | 2.4596 | .01345 | 12.01 | .02339 |
| 450. | 2.0452 | .01359 | 12.17 | .02879 | 450. | 2.3973 | .01369 | 12.22 | .02452 |
| 460. | 1.9956 | .01383 | 12.38 | .03012 | 460. | 2.3384 | .01394 | 12.43 | .02567 |
| 470. | 1.9489 | .01407 | 12.59 | .03145 | 470. | 2.2826 | .01418 | 12.64 | .02683 |
| 480. | 1.9043 | .01432 | 12.81 | .03282 | 480. | 2.2296 | .01442 | 12.85 | .02801 |
| 490. | 1.8619 | .01456 | 13.01 | .03419 | 490. | 2.1792 | .01466 | 13.06 | .02920 |
| 500. | 1.8214 | .01480 | 13.22 | .03559 | 500. | 2.1312 | .01490 | 13.27 | .03040 |
| 510. | 1.7828 | .01504 | 13.43 | .03700 | 510. | 2.0854 | .01514 | 13.47 | .03162 |
| 520. | 1.7459 | .01528 | 13.63 | .03842 | 520. | 2.0417 | .01538 | 13.67 | .03285 |
| 530. | 1.7106 | .01552 | 13.83 | .03986 | 530. | 2.0000 | .01562 | 13.87 | .03410 |
| 540. | 1.6767 | .01576 | 14.04 | .04132 | 540. | 1.9600 | .01585 | 14.07 | .03535 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 400. psia Isobar | | | | | 450. psia Isobar | | | | |
|------------------|----------|---------------|-----------|---------------------|------------------|----------|---------------|-----------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | BTU/ft.h.R | lb/ft.s | ft**2/h | R | lb/ft**3 | BTU/ft.h.R | lb/ft.s | ft**2/h |
| * 98.416 | 81.6540 | .11808 | 331.80 | .00364 | * 98.487 | 81.6678 | .11812 | 332.51 | .00364 |
| 100. | 81.4150 | .11713 | 325.28 | .00362 | 100. | 81.4397 | .11722 | 326.26 | .00362 |
| 105. | 80.6600 | .11426 | 304.57 | .00356 | 105. | 80.6855 | .11437 | 305.47 | .00357 |
| 110. | 79.9027 | .11161 | 284.16 | .00351 | 110. | 79.9292 | .11170 | 284.98 | .00351 |
| 115. | 79.1417 | .10907 | 264.51 | .00347 | 115. | 79.1693 | .10917 | 265.27 | .00347 |
| 120. | 78.3760 | .10665 | 245.90 | .00342 | 120. | 78.4049 | .10675 | 246.61 | .00343 |
| 125. | 77.6047 | .10431 | 228.46 | .00338 | 125. | 77.6351 | .10442 | 229.13 | .00339 |
| 130. | 76.8271 | .10204 | 212.26 | .00334 | 130. | 76.8591 | .10215 | 212.89 | .00335 |
| 135. | 76.0425 | .09981 | 197.28 | .00330 | 135. | 76.0763 | .09993 | 197.87 | .00330 |
| 140. | 75.2502 | .09762 | 183.49 | .00326 | 140. | 75.2859 | .09774 | 184.04 | .00326 |
| 145. | 74.4495 | .09545 | 170.80 | .00322 | 145. | 74.4872 | .09558 | 171.33 | .00322 |
| 150. | 73.6397 | .09329 | 159.16 | .00317 | 150. | 73.6795 | .09342 | 159.66 | .00318 |
| 155. | 72.8197 | .09114 | 148.46 | .00313 | 155. | 72.8620 | .09128 | 148.94 | .00313 |
| 160. | 71.9887 | .08898 | 138.65 | .00308 | 160. | 72.0336 | .08913 | 139.11 | .00309 |
| 165. | 71.1455 | .08682 | 129.63 | .00303 | 165. | 71.1933 | .08697 | 130.07 | .00304 |
| 170. | 70.2889 | .08465 | 121.33 | .00298 | 170. | 70.3398 | .08481 | 121.76 | .00298 |
| 175. | 69.4171 | .08247 | 113.68 | .00292 | 175. | 69.4715 | .08263 | 114.09 | .00293 |
| 180. | 68.5285 | .08027 | 106.61 | .00286 | 180. | 68.5868 | .08044 | 107.02 | .00287 |
| 185. | 67.6209 | .07805 | 100.07 | .00280 | 185. | 67.6836 | .07823 | 100.47 | .00281 |
| 190. | 66.6919 | .07580 | 94.00 | .00273 | 190. | 66.7594 | .07599 | 94.39 | .00274 |
| 195. | 65.7384 | .07353 | 88.35 | .00266 | 195. | 65.8116 | .07374 | 88.73 | .00267 |
| 200. | 64.7570 | .07124 | 83.07 | .00259 | 200. | 64.8366 | .07145 | 83.46 | .00260 |
| 205. | 63.7436 | .06891 | 78.13 | .00251 | 205. | 63.8306 | .06914 | 78.51 | .00252 |
| 210. | 62.6929 | .06654 | 73.47 | .00242 | 210. | 62.7886 | .06679 | 73.86 | .00244 |
| 215. | 61.5988 | .06414 | 69.08 | .00233 | 215. | 61.7049 | .06440 | 69.47 | .00235 |
| 220. | 60.4534 | .06169 | 64.90 | .00224 | 220. | 60.5720 | .06197 | 65.31 | .00225 |
| 225. | 59.2466 | .05918 | 60.91 | .00213 | 225. | 59.3805 | .05949 | 61.33 | .00215 |
| 230. | 57.9652 | .05662 | 57.08 | .00202 | 230. | 58.1184 | .05695 | 57.52 | .00204 |
| 235. | 56.5911 | .05397 | 53.36 | .00190 | 235. | 56.7692 | .05434 | 53.82 | .00192 |
| 240. | 55.0982 | .05123 | 49.71 | .00176 | 240. | 55.3098 | .05165 | 50.21 | .00179 |
| 245. | 53.4464 | .04838 | 46.08 | .00161 | 245. | 53.7052 | .04885 | 46.64 | .00165 |
| 250. | 51.5673 | .04537 | 42.38 | .00143 | 250. | 51.8986 | .04592 | 43.02 | .00148 |
| * 251.561 | 50.9160 | .04439 | 41.19 | .00137 | 255. | 49.7834 | .04282 | 39.26 | .00128 |
| * 251.561 | 7.1921 | .00680 | 8.10 | .00258 | * 256.473 | 49.0725 | .04186 | 38.09 | .00121 |
| 255. | 6.8482 | .00979 | 8.14 | .00301 | * 256.473 | 8.3557 | .01064 | 8.49 | .00207 |
| 260. | 6.4474 | .00984 | 8.20 | .00359 | 260. | 7.8824 | .01058 | 8.49 | .00252 |
| 265. | 6.1209 | .00693 | 8.28 | .00416 | 265. | 7.3666 | .01058 | 8.53 | .00311 |
| 270. | 5.8456 | .01005 | 8.37 | .00471 | 270. | 6.9605 | .01067 | 8.59 | .00367 |
| 275. | 5.6077 | .01023 | 8.47 | .00527 | 275. | 6.6252 | .01083 | 8.67 | .00423 |
| 280. | 5.3984 | .01033 | 8.57 | .00578 | 280. | 6.3396 | .01089 | 8.75 | .00472 |
| 285. | 5.2115 | .01025 | 8.67 | .00616 | 285. | 6.0909 | .01070 | 8.84 | .00508 |
| 290. | 5.0428 | .01024 | 8.77 | .00657 | 290. | 5.8708 | .01063 | 8.93 | .00546 |
| 295. | 4.8893 | .01028 | 8.88 | .00699 | 295. | 5.6735 | .01061 | 9.03 | .00585 |
| 300. | 4.7485 | .01034 | 8.99 | .00742 | 300. | 5.4948 | .01064 | 9.13 | .00624 |
| 310. | 4.4979 | .01051 | 9.21 | .00828 | 310. | 5.1817 | .01076 | 9.34 | .00703 |
| 320. | 4.2802 | .01071 | 9.43 | .00915 | 320. | 4.9142 | .01092 | 9.55 | .00783 |
| 330. | 4.0883 | .01092 | 9.65 | .01003 | 330. | 4.6811 | .01112 | 9.76 | .00864 |
| 340. | 3.9170 | .01115 | 9.87 | .01092 | 340. | 4.4751 | .01133 | 9.97 | .00945 |
| 350. | 3.7628 | .01138 | 10.10 | .01181 | 350. | 4.2910 | .01155 | 10.19 | .01026 |
| 360. | 3.6227 | .01162 | 10.32 | .01272 | 360. | 4.1249 | .01178 | 10.41 | .01108 |
| 370. | 3.4946 | .01186 | 10.54 | .01363 | 370. | 3.9738 | .01201 | 10.63 | .01190 |
| 380. | 3.3768 | .01211 | 10.76 | .01455 | 380. | 3.8356 | .01225 | 10.84 | .01274 |
| 390. | 3.2681 | .01235 | 10.98 | .01548 | 390. | 3.7084 | .01248 | 11.06 | .01358 |
| 400. | 3.1671 | .01259 | 11.20 | .01643 | 400. | 3.5908 | .01272 | 11.27 | .01443 |
| 410. | 3.0732 | .01284 | 11.42 | .01738 | 410. | 3.4816 | .01296 | 11.49 | .01529 |
| 420. | 2.9853 | .01308 | 11.63 | .01835 | 420. | 3.3798 | .01320 | 11.70 | .01616 |
| 430. | 2.9030 | .01332 | 11.85 | .01933 | 430. | 3.2846 | .01344 | 11.91 | .01704 |
| 440. | 2.8256 | .01356 | 12.06 | .02032 | 440. | 3.1954 | .01368 | 12.12 | .01793 |
| 450. | 2.7528 | .01381 | 12.27 | .02132 | 450. | 3.1114 | .01392 | 12.33 | .01883 |
| 460. | 2.6839 | .01405 | 12.48 | .02233 | 460. | 3.0323 | .01416 | 12.54 | .01974 |
| 470. | 2.6188 | .01429 | 12.69 | .02336 | 470. | 2.9576 | .01440 | 12.75 | .02066 |
| 480. | 2.5571 | .01453 | 12.90 | .02440 | 480. | 2.8868 | .01463 | 12.95 | .02159 |
| 490. | 2.4985 | .01477 | 13.11 | .02545 | 490. | 2.8197 | .01487 | 13.16 | .02254 |
| 500. | 2.4427 | .01500 | 13.31 | .02651 | 500. | 2.7560 | .01511 | 13.36 | .02349 |
| 510. | 2.3896 | .01524 | 13.51 | .02759 | 510. | 2.6953 | .01534 | 13.56 | .02445 |
| 520. | 2.3389 | .01548 | 13.72 | .02867 | 520. | 2.6375 | .01558 | 13.76 | .02543 |
| 530. | 2.2905 | .01571 | 13.92 | .02977 | 530. | 2.5823 | .01581 | 13.96 | .02641 |
| 540. | 2.2443 | .01595 | 14.11 | .03088 | 540. | 2.5296 | .01605 | 14.16 | .02740 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 500. psia Isobar | | | | | 600. psia Isobar | | | | |
|------------------|----------|---------------|---------------|---------------------|------------------|----------|---------------|---------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | 8TU/ft.h.R | micro-lb/ft.s | ft**2/h | R | lb/ft**3 | 8TU/ft.h.R | micro-lb/ft.s | ft**2/h |
| * 98.55R | 81.6816 | .11817 | 333.23 | .00364 | * 98.700 | 81.7091 | .11827 | 334.65 | .00365 |
| 100. | 81.4644 | .11731 | 327.24 | .00363 | 100. | 81.5136 | .11749 | 329.20 | .00363 |
| 105. | 80.7110 | .11446 | 306.36 | .00357 | 105. | 80.7617 | .11465 | 308.16 | .00357 |
| 110. | 79.9556 | .11180 | 285.81 | .00352 | 110. | 80.0083 | .11199 | 287.47 | .00352 |
| 115. | 79.1969 | .10927 | 266.04 | .00347 | 115. | 79.2519 | .10947 | 267.57 | .00348 |
| 120. | 78.4338 | .10686 | 247.32 | .00343 | 120. | 78.4913 | .10706 | 248.75 | .00344 |
| 125. | 77.6654 | .10453 | 229.80 | .00339 | 125. | 77.7258 | .10474 | 231.13 | .00340 |
| 130. | 76.8910 | .10226 | 213.51 | .00335 | 130. | 76.9546 | .10248 | 214.76 | .00336 |
| 135. | 76.1099 | .10005 | 198.46 | .00331 | 135. | 76.1768 | .10028 | 199.63 | .00332 |
| 140. | 75.3214 | .09786 | 184.60 | .00327 | 140. | 75.3920 | .09810 | 185.71 | .00328 |
| 145. | 74.5247 | .09570 | 171.85 | .00323 | 145. | 74.5993 | .09595 | 172.91 | .00324 |
| 150. | 73.7192 | .09355 | 160.16 | .00318 | 150. | 73.7982 | .09382 | 161.16 | .00319 |
| 155. | 72.9041 | .09141 | 149.42 | .00314 | 155. | 72.9877 | .09169 | 150.38 | .00315 |
| 160. | 72.0783 | .08927 | 139.57 | .00309 | 160. | 72.1670 | .08956 | 140.48 | .00310 |
| 165. | 71.2408 | .08712 | 130.51 | .00304 | 165. | 71.3351 | .08742 | 131.39 | .00306 |
| 170. | 70.3904 | .08497 | 122.18 | .00299 | 170. | 70.4909 | .08528 | 123.03 | .00300 |
| 175. | 69.5256 | .08280 | 114.51 | .00294 | 175. | 69.6328 | .08312 | 115.33 | .00295 |
| 180. | 68.6447 | .08061 | 107.42 | .00288 | 180. | 68.7594 | .08095 | 108.22 | .00289 |
| 185. | 67.7458 | .07841 | 100.86 | .00282 | 185. | 67.8688 | .07877 | 101.65 | .00283 |
| 190. | 66.8265 | .07619 | 94.78 | .00275 | 190. | 66.9589 | .07656 | 95.55 | .00277 |
| 195. | 65.8841 | .07394 | 89.12 | .00268 | 195. | 66.0271 | .07434 | 89.88 | .00270 |
| 200. | 64.9154 | .07166 | 83.84 | .00261 | 200. | 65.0706 | .07209 | 84.60 | .00263 |
| 205. | 63.9166 | .06936 | 78.89 | .00253 | 205. | 64.0857 | .06981 | 79.65 | .00256 |
| 210. | 62.8831 | .06703 | 74.25 | .00245 | 210. | 63.0685 | .06750 | 75.01 | .00248 |
| 215. | 61.8094 | .06466 | 69.86 | .00236 | 215. | 62.0139 | .06517 | 70.64 | .00239 |
| 220. | 60.6885 | .06225 | 65.71 | .00227 | 220. | 60.9158 | .06279 | 66.50 | .00230 |
| 225. | 59.5118 | .05979 | 61.75 | .00217 | 225. | 59.7666 | .06038 | 62.56 | .00221 |
| 230. | 58.2680 | .05728 | 57.95 | .00206 | 230. | 58.5569 | .05792 | 58.79 | .00210 |
| 235. | 56.9422 | .05470 | 54.28 | .00195 | 235. | 57.2741 | .05540 | 55.17 | .00199 |
| 240. | 55.5138 | .05205 | 50.70 | .00182 | 240. | 55.9016 | .05283 | 51.65 | .00188 |
| 245. | 53.9523 | .04931 | 47.18 | .00168 | 245. | 54.4157 | .05018 | 48.21 | .00175 |
| 250. | 52.2097 | .04645 | 43.64 | .00152 | 250. | 52.7814 | .04745 | 44.79 | .00160 |
| 255. | 50.2008 | .04345 | 40.00 | .00134 | 255. | 50.9415 | .04462 | 41.34 | .00144 |
| 260. | 47.7433 | .04027 | 36.06 | .00111 | 260. | 48.7905 | .04169 | 37.74 | .00125 |
| * 260.997 | 47.1454 | .03960 | 35.20 | .00105 | 265. | 46.0857 | .03865 | 33.76 | .00101 |
| * 260.997 | 46.6481 | .01171 | 8.92 | .00165 | * 269.110 | 42.8802 | .03611 | 29.67 | .00071 |
| 265. | 8.9281 | .01154 | 8.87 | .00218 | * 269.110 | 12.8674 | .01516 | 10.02 | .00093 |
| 270. | 8.2842 | .01151 | 8.88 | .00278 | 270. | 12.4497 | .01491 | 9.93 | .00110 |
| 275. | 7.7930 | .01163 | 8.91 | .00336 | 275. | 10.9554 | .01435 | 9.67 | .00186 |
| 280. | 7.3951 | .01161 | 8.97 | .00386 | 280. | 10.0494 | .01386 | 9.59 | .00244 |
| 285. | 7.0604 | .01126 | 9.04 | .00420 | 285. | 9.3905 | .01291 | 9.57 | .00281 |
| 290. | 6.7718 | .01109 | 9.12 | .00456 | 290. | 8.8712 | .01238 | 9.59 | .00316 |
| 295. | 6.5182 | .01101 | 9.20 | .00492 | 295. | 8.4425 | .01208 | 9.63 | .00351 |
| 300. | 6.2922 | .01099 | 9.29 | .00529 | 300. | 8.0777 | .01190 | 9.68 | .00385 |
| 310. | 5.9033 | .01104 | 9.48 | .00604 | 310. | 7.4798 | .01175 | 9.81 | .00453 |
| 320. | 5.5771 | .01117 | 9.67 | .00678 | 320. | 7.0014 | .01176 | 9.97 | .00519 |
| 330. | 5.2967 | .01134 | 9.88 | .00752 | 330. | 6.6037 | .01184 | 10.15 | .00585 |
| 340. | 5.0516 | .01153 | 10.08 | .00827 | 340. | 6.2644 | .01197 | 10.33 | .00650 |
| 350. | 4.8344 | .01173 | 10.29 | .00902 | 350. | 5.9692 | .01214 | 10.52 | .00716 |
| 360. | 4.6397 | .01195 | 10.50 | .00977 | 360. | 5.7087 | .01232 | 10.72 | .00781 |
| 370. | 4.4636 | .01217 | 10.72 | .01052 | 370. | 5.4760 | .01252 | 10.91 | .00846 |
| 380. | 4.3033 | .01240 | 10.93 | .01129 | 380. | 5.2662 | .01272 | 11.11 | .00912 |
| 390. | 4.1564 | .01263 | 11.14 | .01206 | 390. | 5.0756 | .01294 | 11.31 | .00978 |
| 400. | 4.0210 | .01286 | 11.35 | .01283 | 400. | 4.9012 | .01315 | 11.52 | .01045 |
| 410. | 3.8956 | .01309 | 11.56 | .01362 | 410. | 4.7409 | .01337 | 11.72 | .01112 |
| 420. | 3.7792 | .01333 | 11.77 | .01441 | 420. | 4.5926 | .01360 | 11.92 | .01180 |
| 430. | 3.6705 | .01357 | 11.98 | .01521 | 430. | 4.4550 | .01382 | 12.12 | .01248 |
| 440. | 3.5688 | .01380 | 12.19 | .01602 | 440. | 4.3268 | .01405 | 12.32 | .01317 |
| 450. | 3.4734 | .01404 | 12.39 | .01684 | 450. | 4.2069 | .01428 | 12.52 | .01387 |
| 460. | 3.3835 | .01427 | 12.60 | .01767 | 460. | 4.0944 | .01451 | 12.73 | .01457 |
| 470. | 3.2998 | .01451 | 12.80 | .01851 | 470. | 3.9887 | .01474 | 12.92 | .01528 |
| 480. | 3.2187 | .01474 | 13.01 | .01935 | 480. | 3.8890 | .01497 | 13.12 | .01600 |
| 490. | 3.1429 | .01498 | 13.21 | .02021 | 490. | 3.7948 | .01520 | 13.32 | .01672 |
| 500. | 3.0709 | .01521 | 13.41 | .02107 | 500. | 3.7057 | .01543 | 13.52 | .01746 |
| 510. | 3.0024 | .01545 | 13.61 | .02195 | 510. | 3.6211 | .01566 | 13.71 | .01819 |
| 520. | 2.9373 | .01568 | 13.81 | .02283 | 520. | 3.5407 | .01589 | 13.91 | .01894 |
| 530. | 2.8752 | .01591 | 14.01 | .02372 | 530. | 3.4642 | .01612 | 14.10 | .01969 |
| 540. | 2.8159 | .01614 | 14.20 | .02462 | 540. | 3.3913 | .01634 | 14.30 | .02045 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 700. psia Isohar | | | | | 800. psia Isohar | | | | |
|------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 99.841 | 81.7366 | .11836 | 336.07 | .00365 | * 99.983 | 81.7640 | .11846 | 337.48 | .00365 |
| 100. | 81.5627 | .11768 | 331.17 | .00364 | 100. | 81.6116 | .11786 | 333.14 | .00354 |
| 105. | 80.8123 | .11484 | 309.96 | .00358 | 105. | 80.8627 | .11502 | 311.77 | .00358 |
| 110. | 80.0608 | .11218 | 289.13 | .00353 | 110. | 80.1130 | .11237 | 290.79 | .00353 |
| 115. | 79.3066 | .10966 | 269.11 | .00348 | 115. | 79.3610 | .10986 | 270.65 | .00349 |
| 120. | 78.5486 | .10726 | 250.18 | .00344 | 120. | 78.6056 | .10747 | 251.61 | .00345 |
| 125. | 77.7859 | .10495 | 232.46 | .00340 | 125. | 77.8456 | .10516 | 233.80 | .00341 |
| 130. | 77.0177 | .10270 | 216.01 | .00336 | 130. | 77.0805 | .10292 | 217.26 | .00337 |
| 135. | 76.2433 | .10050 | 200.81 | .00332 | 135. | 76.3094 | .10073 | 201.98 | .00333 |
| 140. | 75.4621 | .09834 | 186.81 | .00329 | 140. | 75.5317 | .09858 | 187.92 | .00329 |
| 145. | 74.6734 | .09620 | 173.96 | .00325 | | | | | |
| 150. | 73.8765 | .09407 | 162.16 | .00320 | 145. | 74.7469 | .09645 | 175.01 | .00325 |
| 155. | 73.0706 | .09196 | 151.33 | .00316 | 150. | 73.9541 | .09433 | 163.15 | .00321 |
| 160. | 72.2549 | .08984 | 141.39 | .00311 | 155. | 73.1528 | .09223 | 152.28 | .00317 |
| 165. | 71.4285 | .08772 | 132.27 | .00307 | 160. | 72.3470 | .09012 | 142.31 | .00313 |
| 170. | 70.5902 | .08559 | 123.88 | .00302 | 165. | 71.5209 | .08801 | 133.15 | .00308 |
| 175. | 69.7487 | .08345 | 116.15 | .00297 | 170. | 70.6884 | .08589 | 124.72 | .00303 |
| 180. | 68.8726 | .08129 | 109.02 | .00291 | 175. | 69.8434 | .08377 | 116.97 | .00298 |
| 185. | 67.9901 | .07912 | 102.43 | .00285 | 180. | 68.9943 | .08163 | 109.82 | .00292 |
| 190. | 67.0892 | .07694 | 96.32 | .00279 | 185. | 68.1096 | .07948 | 103.21 | .00287 |
| 195. | 66.1676 | .07473 | 90.64 | .00272 | 190. | 67.2175 | .07731 | 97.08 | .00281 |
| 200. | 65.2227 | .07250 | 85.35 | .00265 | 195. | 66.3057 | .07512 | 91.39 | .00274 |
| 205. | 64.2511 | .07025 | 80.41 | .00258 | 200. | 65.3719 | .07291 | 85.10 | .00267 |
| 210. | 63.2493 | .06797 | 75.77 | .00250 | 205. | 64.4130 | .07068 | 81.15 | .00260 |
| 215. | 62.2126 | .06566 | 71.40 | .00242 | 210. | 63.4258 | .06843 | 76.51 | .00253 |
| 220. | 61.1358 | .06332 | 67.27 | .00233 | 215. | 62.4060 | .06615 | 72.15 | .00245 |
| 225. | 60.0121 | .06095 | 63.35 | .00224 | 220. | 61.3491 | .06384 | 68.03 | .00236 |
| 230. | 58.8334 | .05854 | 59.61 | .00214 | 225. | 60.2490 | .06151 | 64.13 | .00228 |
| 235. | 57.5892 | .05608 | 56.03 | .00204 | 230. | 59.0988 | .05914 | 60.41 | .00218 |
| 240. | 56.2658 | .05357 | 52.56 | .00193 | 235. | 57.8895 | .05673 | 56.86 | .00208 |
| 245. | 54.8446 | .05100 | 49.19 | .00181 | 240. | 56.6097 | .05428 | 53.44 | .00198 |
| 250. | 53.2990 | .04837 | 45.87 | .00168 | 245. | 55.2445 | .05178 | 50.12 | .00185 |
| 255. | 51.5887 | .04567 | 42.55 | .00153 | 250. | 53.7733 | .04924 | 46.88 | .00174 |
| 260. | 49.6466 | .04292 | 39.18 | .00137 | 255. | 52.1667 | .04665 | 43.67 | .00161 |
| 265. | 47.3439 | .04014 | 35.62 | .00118 | 260. | 50.3789 | .04403 | 40.45 | .00147 |
| 270. | 44.3657 | .03748 | 31.59 | .00093 | 265. | 48.3327 | .04141 | 37.15 | .00130 |
| 275. | 39.2588 | .03552 | 25.84 | .00069 | 270. | 45.8756 | .03895 | 33.64 | .00112 |
| * 276.207 | 36.2469 | .03518 | 23.01 | .00023 | 275. | 42.6214 | .03706 | 29.58 | .00088 |
| * 276.207 | 18.6292 | .02519 | 12.20 | .00025 | 280. | 36.7353 | .03573 | 23.59 | .00044 |
| 280. | 14.5246 | .01883 | 10.87 | .00109 | 285. | 19.7566 | .02479 | 12.96 | .00052 |
| 285. | 12.7045 | .01587 | 10.46 | .00165 | 290. | 15.8101 | .01837 | 11.62 | .00112 |
| 290. | 11.6137 | .01447 | 10.30 | .00208 | 295. | 14.0453 | .01628 | 11.18 | .00157 |
| 295. | 10.8277 | .01368 | 10.23 | .00245 | 300. | 12.9002 | .01514 | 10.97 | .00195 |
| 300. | 10.2126 | .01320 | 10.21 | .00279 | 310. | 11.3817 | .01398 | 10.81 | .00261 |
| 310. | 9.2795 | .01270 | 10.24 | .00344 | 320. | 10.3546 | .01346 | 10.80 | .00321 |
| 320. | 8.5813 | .01250 | 10.34 | .00406 | 330. | 9.5818 | .01323 | 10.86 | .00377 |
| 330. | 8.0254 | .01246 | 10.47 | .00466 | 340. | 8.9649 | .01315 | 10.97 | .00432 |
| 340. | 7.5651 | .01251 | 10.62 | .00525 | 350. | 8.4535 | .01317 | 11.09 | .00486 |
| 350. | 7.1734 | .01261 | 10.79 | .00584 | 360. | 8.0181 | .01324 | 11.24 | .00539 |
| 360. | 6.8336 | .01275 | 10.96 | .00642 | 370. | 7.6401 | .01335 | 11.40 | .00591 |
| 370. | 6.5341 | .01291 | 11.14 | .00700 | 380. | 7.3071 | .01349 | 11.56 | .00644 |
| 380. | 6.2671 | .01308 | 11.32 | .00758 | 390. | 7.0101 | .01365 | 11.73 | .00697 |
| 390. | 6.0266 | .01327 | 11.51 | .00817 | 400. | 6.7427 | .01382 | 11.91 | .00749 |
| 400. | 5.8084 | .01347 | 11.70 | .00875 | 410. | 6.5000 | .01401 | 12.09 | .00802 |
| 410. | 5.6090 | .01368 | 11.89 | .00934 | 420. | 6.2783 | .01420 | 12.27 | .00855 |
| 420. | 5.4257 | .01389 | 12.09 | .00994 | 430. | 6.0744 | .01440 | 12.45 | .00909 |
| 430. | 5.2564 | .01410 | 12.28 | .01054 | 440. | 5.8862 | .01460 | 12.64 | .00963 |
| 440. | 5.0993 | .01432 | 12.47 | .01114 | 450. | 5.7115 | .01481 | 12.83 | .01017 |
| 450. | 4.9530 | .01454 | 12.67 | .01175 | 460. | 5.5488 | .01502 | 13.01 | .01072 |
| 460. | 4.8163 | .01476 | 12.86 | .01236 | 470. | 5.3968 | .01523 | 13.20 | .01127 |
| 470. | 4.6881 | .01498 | 13.06 | .01298 | 480. | 5.2542 | .01545 | 13.39 | .01183 |
| 480. | 4.5676 | .01520 | 13.25 | .01361 | 490. | 5.1202 | .01567 | 13.57 | .01239 |
| 490. | 4.4541 | .01543 | 13.44 | .01424 | 500. | 4.9939 | .01588 | 13.76 | .01295 |
| 500. | 4.3468 | .01565 | 13.64 | .01488 | 510. | 4.8747 | .01610 | 13.95 | .01352 |
| 510. | 4.2453 | .01588 | 13.83 | .01552 | 520. | 4.7617 | .01632 | 14.13 | .01410 |
| 520. | 4.1490 | .01610 | 14.02 | .01617 | 530. | 4.6546 | .01654 | 14.32 | .01468 |
| 530. | 4.0575 | .01632 | 14.21 | .01682 | 540. | 4.5528 | .01676 | 14.51 | .01526 |
| 540. | 3.9704 | .01655 | 14.40 | .01748 | 530. | 3.4642 | .01612 | 14.10 | .01969 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 900. psia Isobar | | | | | 1000. psia Isobar | | | | |
|------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 99.124 | 81.7913 | .11856 | 338.89 | .00366 | * 99.265 | 81.8186 | .11865 | 340.29 | .00366 |
| 100. | 81.6603 | .11804 | 335.12 | .00364 | 100. | 81.7089 | .11822 | 337.10 | .00365 |
| 105. | 80.9128 | .11520 | 313.58 | .00359 | 105. | 80.9628 | .11539 | 315.39 | .00359 |
| 110. | 80.1650 | .11256 | 292.45 | .00354 | 110. | 80.2168 | .11274 | 294.12 | .00355 |
| 115. | 79.4152 | .11005 | 272.19 | .00350 | 115. | 79.4692 | .11025 | 273.73 | .00350 |
| 120. | 78.6622 | .10767 | 253.04 | .00346 | 120. | 78.7186 | .10787 | 254.47 | .00346 |
| 125. | 77.9050 | .10537 | 235.13 | .00342 | 125. | 77.9641 | .10558 | 236.47 | .00342 |
| 130. | 77.1429 | .10314 | 218.51 | .00338 | 130. | 77.2049 | .10336 | 219.76 | .00339 |
| 135. | 76.3750 | .10096 | 203.16 | .00334 | 135. | 76.4403 | .10118 | 204.33 | .00335 |
| 140. | 75.6009 | .09881 | 189.03 | .00330 | 140. | 75.6696 | .09905 | 190.14 | .00331 |
| 145. | 74.8198 | .09669 | 176.05 | .00326 | 145. | 74.8923 | .09694 | 177.10 | .00327 |
| 150. | 74.0312 | .09459 | 164.15 | .00322 | 150. | 74.1077 | .09484 | 165.14 | .00323 |
| 155. | 73.2343 | .09249 | 153.23 | .00318 | 155. | 73.3151 | .09276 | 154.18 | .00319 |
| 160. | 72.4283 | .09040 | 143.21 | .00314 | 160. | 72.5139 | .09068 | 144.12 | .00315 |
| 165. | 71.6124 | .08830 | 134.02 | .00309 | 165. | 71.7031 | .08859 | 134.89 | .00310 |
| 170. | 70.7856 | .08620 | 125.57 | .00304 | 170. | 70.8818 | .08650 | 126.41 | .00306 |
| 175. | 69.9468 | .08409 | 117.79 | .00299 | 175. | 70.0491 | .08440 | 118.60 | .00301 |
| 180. | 69.0966 | .08196 | 110.61 | .00294 | 180. | 69.2035 | .08229 | 111.40 | .00295 |
| 185. | 68.2275 | .07982 | 103.93 | .00288 | 185. | 68.3438 | .08017 | 104.75 | .00290 |
| 190. | 67.3438 | .07767 | 97.84 | .00282 | 190. | 67.4683 | .07803 | 98.59 | .00284 |
| 195. | 66.4415 | .07550 | 92.14 | .00276 | 195. | 66.5751 | .07588 | 92.88 | .00278 |
| 200. | 65.5184 | .07331 | 86.83 | .00270 | 200. | 65.6622 | .07371 | 87.57 | .00271 |
| 205. | 64.5716 | .07111 | 81.88 | .00263 | 205. | 64.7270 | .07153 | 82.61 | .00265 |
| 210. | 63.5982 | .06888 | 77.24 | .00255 | 210. | 63.7568 | .06932 | 77.97 | .00258 |
| 215. | 62.5945 | .06663 | 72.89 | .00248 | 215. | 62.7782 | .06710 | 73.61 | .00250 |
| 220. | 61.5561 | .06435 | 68.78 | .00239 | 220. | 61.7574 | .06485 | 69.51 | .00242 |
| 225. | 60.4780 | .06205 | 64.89 | .00231 | 225. | 60.6998 | .06258 | 65.64 | .00234 |
| 230. | 59.3540 | .05972 | 61.20 | .00222 | 230. | 59.6001 | .06028 | 61.96 | .00225 |
| 235. | 58.1764 | .05736 | 57.67 | .00212 | 235. | 58.4515 | .05796 | 58.45 | .00216 |
| 240. | 56.9358 | .05496 | 54.28 | .00202 | 240. | 57.2462 | .05561 | 55.10 | .00206 |
| 245. | 55.6198 | .05252 | 51.01 | .00191 | 245. | 55.9739 | .05324 | 51.87 | .00196 |
| 250. | 54.2123 | .05006 | 47.83 | .00180 | 250. | 54.6216 | .05083 | 48.74 | .00186 |
| 255. | 52.6910 | .04756 | 44.71 | .00168 | 255. | 53.1722 | .04841 | 45.69 | .00174 |
| 260. | 51.0234 | .04504 | 41.62 | .00155 | 260. | 51.6018 | .04598 | 42.69 | .00162 |
| 265. | 49.1592 | .04255 | 38.50 | .00141 | 265. | 49.8755 | .04359 | 39.71 | .00150 |
| 270. | 47.0117 | .04020 | 35.29 | .00125 | 270. | 47.9392 | .04133 | 36.69 | .00136 |
| 275. | 44.4095 | .03833 | 31.82 | .00108 | 275. | 45.7002 | .03946 | 33.56 | .00122 |
| 280. | 40.9258 | .03677 | 27.82 | .00085 | 280. | 42.9802 | .03780 | 30.20 | .00106 |
| 285. | 34.9783 | .03361 | 22.25 | .00049 | 285. | 39.3766 | .03506 | 26.35 | .00032 |
| 290. | 24.6816 | .02799 | 15.47 | .00047 | 290. | 33.9561 | .03206 | 21.60 | .00058 |
| 295. | 19.1098 | .02095 | 13.03 | .00085 | 295. | 26.9862 | .02757 | 16.95 | .00038 |
| 300. | 16.5667 | .01818 | 12.20 | .00126 | 300. | 21.9062 | .02290 | 14.43 | .00030 |
| 310. | 13.9113 | .01573 | 11.58 | .00195 | 310. | 17.0491 | .01816 | 12.69 | .00143 |
| 320. | 12.3714 | .01466 | 11.38 | .00254 | 320. | 14.6948 | .01625 | 12.13 | .00201 |
| 330. | 11.2964 | .01417 | 11.34 | .00308 | 330. | 13.1961 | .01531 | 11.92 | .00254 |
| 340. | 10.4760 | .01391 | 11.27 | .00360 | 340. | 12.1109 | .01482 | 11.85 | .00303 |
| 350. | 9.8158 | .01381 | 11.45 | .00410 | 350. | 11.2667 | .01456 | 11.86 | .00351 |
| 360. | 9.2658 | .01380 | 11.56 | .00459 | 360. | 10.5796 | .01444 | 11.92 | .00397 |
| 370. | 8.7960 | .01385 | 11.68 | .00508 | 370. | 10.0029 | .01441 | 12.01 | .00442 |
| 380. | 8.3872 | .01394 | 11.82 | .00556 | 380. | 9.5077 | .01444 | 12.12 | .00487 |
| 390. | 8.0263 | .01406 | 11.98 | .00604 | 390. | 9.0752 | .01451 | 12.25 | .00531 |
| 400. | 7.7041 | .01420 | 12.14 | .00652 | 400. | 8.6923 | .01462 | 12.38 | .00576 |
| 410. | 7.4137 | .01436 | 12.30 | .00700 | 410. | 8.3495 | .01474 | 12.53 | .00620 |
| 420. | 7.1499 | .01453 | 12.47 | .00749 | 420. | 8.0401 | .01489 | 12.69 | .00664 |
| 430. | 6.9087 | .01471 | 12.64 | .00797 | 430. | 7.7585 | .01505 | 12.85 | .00709 |
| 440. | 6.6868 | .01490 | 12.82 | .00846 | 440. | 7.5007 | .01522 | 13.01 | .00753 |
| 450. | 6.4818 | .01510 | 13.00 | .00895 | 450. | 7.2633 | .01540 | 13.18 | .00798 |
| 460. | 6.2915 | .01530 | 13.17 | .00944 | 460. | 7.0437 | .01558 | 13.35 | .00844 |
| 470. | 6.1142 | .01550 | 13.35 | .00994 | 470. | 6.8399 | .01577 | 13.52 | .00889 |
| 480. | 5.9484 | .01570 | 13.53 | .01045 | 480. | 6.6496 | .01597 | 13.69 | .00935 |
| 490. | 5.7929 | .01591 | 13.72 | .01095 | 490. | 6.4716 | .01617 | 13.87 | .00981 |
| 500. | 5.6467 | .01612 | 13.90 | .01146 | 500. | 6.3046 | .01637 | 14.04 | .01027 |
| 510. | 5.5089 | .01633 | 14.08 | .01197 | 510. | 6.1475 | .01657 | 14.22 | .01074 |
| 520. | 5.3786 | .01654 | 14.26 | .01249 | 520. | 5.9994 | .01678 | 14.39 | .01121 |
| 530. | 5.2553 | .01676 | 14.44 | .01301 | 530. | 5.8593 | .01698 | 14.57 | .01159 |
| 540. | 5.1383 | .01697 | 14.62 | .01354 | 540. | 5.7266 | .01719 | 14.74 | .01216 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 1100. psia Isobar | | | | | 1200. psia Isobar | | | | |
|-------------------|----------|---------------|---------------|---------------------|-------------------|----------|---------------|---------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | BTU/ft.h.R | micro-ib/ft.s | ft**2/h | R | lb/ft**3 | BTU/ft.h.R | micro-ib/ft.s | ft**2/h |
| * 99.406 | 81.8458 | .11875 | 341.69 | .00366 | * 99.547 | 81.8729 | .11885 | 343.09 | .00366 |
| 100. | 81.7573 | .11840 | 339.09 | .00365 | 100. | 81.8055 | .11858 | 341.09 | .00366 |
| 105. | 81.0126 | .11557 | 317.21 | .00360 | 105. | 81.0622 | .11575 | 319.03 | .00360 |
| 110. | 80.2684 | .11293 | 295.79 | .00355 | 110. | 80.3198 | .11312 | 297.47 | .00356 |
| 115. | 79.5229 | .11044 | 275.27 | .00351 | 115. | 79.5763 | .11064 | 276.82 | .00351 |
| 120. | 78.7747 | .10807 | 255.40 | .00347 | 120. | 78.8305 | .10827 | 257.34 | .00347 |
| 125. | 78.0229 | .10579 | 237.80 | .00343 | 125. | 78.0814 | .10599 | 239.14 | .00344 |
| 130. | 77.2666 | .10357 | 221.01 | .00339 | 130. | 77.3279 | .10379 | 222.26 | .00340 |
| 135. | 76.5051 | .10141 | 205.51 | .00336 | 135. | 76.5696 | .10163 | 206.68 | .00336 |
| 140. | 75.7379 | .09928 | 191.24 | .00332 | 140. | 75.8057 | .09951 | 192.35 | .00333 |
| 145. | 74.9642 | .09718 | 178.15 | .00328 | 145. | 75.0357 | .09742 | 179.19 | .00329 |
| 150. | 74.1836 | .09510 | 166.14 | .00324 | 150. | 74.2589 | .09535 | 167.13 | .00325 |
| 155. | 73.3953 | .09302 | 155.13 | .00320 | 155. | 73.4748 | .09329 | 156.07 | .00321 |
| 160. | 72.5986 | .09095 | 145.03 | .00316 | 160. | 72.6827 | .09122 | 145.93 | .00317 |
| 165. | 71.7928 | .08888 | 135.76 | .00311 | 165. | 71.8818 | .08916 | 136.62 | .00313 |
| 170. | 70.9770 | .08680 | 127.24 | .00307 | 170. | 71.0713 | .08710 | 128.08 | .00308 |
| 175. | 70.1502 | .08471 | 119.41 | .00302 | 175. | 70.2502 | .08503 | 120.21 | .00303 |
| 180. | 69.3111 | .08262 | 112.18 | .00297 | 180. | 69.4174 | .08294 | 112.96 | .00298 |
| 185. | 68.4585 | .08051 | 105.51 | .00291 | 185. | 68.5718 | .08085 | 106.27 | .00293 |
| 190. | 67.5909 | .07839 | 99.34 | .00286 | 190. | 67.7118 | .07875 | 100.09 | .00287 |
| 195. | 66.7066 | .07626 | 93.62 | .00280 | 195. | 66.8360 | .07663 | 94.35 | .00281 |
| 200. | 65.8035 | .07411 | 88.29 | .00273 | 200. | 65.9424 | .07450 | 89.01 | .00275 |
| 205. | 64.8794 | .07194 | 83.33 | .00267 | 205. | 65.0289 | .07235 | 84.04 | .00269 |
| 210. | 63.9318 | .06976 | 78.69 | .00260 | 210. | 64.0933 | .07019 | 79.39 | .00262 |
| 215. | 62.9575 | .06756 | 74.33 | .00253 | 215. | 63.1327 | .06801 | 75.04 | .00255 |
| 220. | 61.9533 | .06534 | 70.24 | .00245 | 220. | 62.1441 | .06582 | 70.95 | .00248 |
| 225. | 60.9149 | .06310 | 66.37 | .00237 | 225. | 61.1238 | .06360 | 67.09 | .00240 |
| 230. | 59.8377 | .06084 | 62.70 | .00228 | 230. | 60.0675 | .06138 | 63.44 | .00232 |
| 235. | 58.7159 | .05855 | 59.22 | .00220 | 235. | 58.9704 | .05913 | 59.97 | .00223 |
| 240. | 57.5426 | .05625 | 55.89 | .00210 | 240. | 57.8265 | .05686 | 56.66 | .00214 |
| 245. | 56.3094 | .05392 | 52.70 | .00201 | 245. | 56.6286 | .05458 | 53.50 | .00205 |
| 250. | 55.0058 | .05158 | 49.61 | .00191 | 250. | 55.3682 | .05229 | 50.45 | .00195 |
| 255. | 53.6181 | .04922 | 46.62 | .00180 | 255. | 54.0341 | .04999 | 47.51 | .00185 |
| 260. | 52.1282 | .04686 | 43.70 | .00169 | 260. | 52.6126 | .04769 | 44.64 | .00175 |
| 265. | 50.5113 | .04455 | 40.81 | .00157 | 265. | 51.0851 | .04544 | 41.84 | .00164 |
| 270. | 48.7310 | .04236 | 37.94 | .00145 | 270. | 49.4261 | .04311 | 39.07 | .00153 |
| 275. | 46.7313 | .04050 | 35.02 | .00133 | 275. | 47.5994 | .04146 | 36.31 | .00143 |
| 280. | 44.4195 | .03879 | 32.01 | .00120 | 280. | 45.5501 | .03973 | 33.51 | .00132 |
| 285. | 41.6287 | .03623 | 28.79 | .00102 | 285. | 43.1929 | .03731 | 30.63 | .00117 |
| 290. | 38.0518 | .03370 | 25.22 | .00083 | 290. | 40.3929 | .03495 | 27.60 | .00101 |
| 295. | 33.3314 | .03094 | 21.29 | .00069 | 295. | 36.9726 | .03260 | 24.38 | .00087 |
| 300. | 28.1152 | .02754 | 17.82 | .00070 | 300. | 32.9116 | .03013 | 21.15 | .00079 |
| 310. | 20.9261 | .02131 | 14.30 | .00108 | 310. | 25.2151 | .02462 | 16.46 | .00094 |
| 320. | 17.3850 | .01822 | 13.12 | .00160 | 320. | 20.4363 | .02055 | 14.40 | .00132 |
| 330. | 15.3058 | .01670 | 12.63 | .00211 | 330. | 17.6349 | .01834 | 13.51 | .00177 |
| 340. | 13.8805 | .01588 | 12.41 | .00258 | 340. | 15.7898 | .01711 | 13.09 | .00222 |
| 350. | 12.8108 | .01542 | 12.33 | .00303 | 350. | 14.4500 | .01639 | 12.88 | .00265 |
| 360. | 11.9615 | .01516 | 12.33 | .00347 | 360. | 13.4116 | .01597 | 12.79 | .00306 |
| 370. | 11.2614 | .01503 | 12.37 | .00389 | 370. | 12.5708 | .01572 | 12.77 | .00346 |
| 380. | 10.6684 | .01499 | 12.44 | .00431 | 380. | 11.8683 | .01559 | 12.80 | .00385 |
| 390. | 10.1560 | .01501 | 12.54 | .00472 | 390. | 11.2677 | .01554 | 12.87 | .00424 |
| 400. | 9.7063 | .01507 | 12.66 | .00514 | 400. | 10.7450 | .01555 | 12.95 | .00463 |
| 410. | 9.3066 | .01516 | 12.78 | .00555 | 410. | 10.2837 | .01560 | 13.06 | .00502 |
| 420. | 8.9478 | .01527 | 12.92 | .00596 | 420. | 9.8721 | .01568 | 13.17 | .00540 |
| 430. | 8.6230 | .01541 | 13.07 | .00637 | 430. | 9.5013 | .01579 | 13.30 | .00578 |
| 440. | 8.3269 | .01556 | 13.22 | .00679 | 440. | 9.1646 | .01591 | 13.44 | .00617 |
| 450. | 8.0553 | .01572 | 13.37 | .00720 | 450. | 8.8569 | .01605 | 13.58 | .00655 |
| 460. | 7.8049 | .01589 | 13.53 | .00762 | 460. | 8.5742 | .01620 | 13.73 | .00694 |
| 470. | 7.5729 | .01606 | 13.69 | .00804 | 470. | 8.3129 | .01636 | 13.88 | .00733 |
| 480. | 7.3572 | .01624 | 13.86 | .00846 | 480. | 8.0706 | .01653 | 14.04 | .00772 |
| 490. | 7.1558 | .01643 | 14.02 | .00888 | 490. | 7.8449 | .01670 | 14.19 | .00811 |
| 500. | 6.9673 | .01662 | 14.19 | .00931 | 500. | 7.6340 | .01688 | 14.35 | .00851 |
| 510. | 6.7902 | .01682 | 14.36 | .00974 | 510. | 7.4363 | .01707 | 14.52 | .00891 |
| 520. | 6.6234 | .01701 | 14.53 | .01017 | 520. | 7.2504 | .01726 | 14.68 | .00931 |
| 530. | 6.4660 | .01721 | 14.70 | .01061 | 530. | 7.0752 | .01745 | 14.84 | .00971 |
| 540. | 6.3171 | .01741 | 14.87 | .01104 | 540. | 6.9097 | .01764 | 15.01 | .01012 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 1300. psia Isobar | | | | | 1400. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 99.688 | 81.9000 | .11894 | 344.48 | .00367 | * 99.829 | 81.9269 | .11904 | 345.86 | .00367 |
| 100. | 81.8536 | .11876 | 343.09 | .00366 | 100. | 81.9015 | .11894 | 345.09 | .00367 |
| 105. | 81.1116 | .11594 | 320.85 | .00361 | 105. | 81.1609 | .11612 | 322.68 | .00361 |
| 110. | 80.3709 | .11331 | 299.14 | .00356 | 110. | 80.4219 | .11349 | 300.82 | .00357 |
| 115. | 79.6296 | .11083 | 278.37 | .00352 | 115. | 79.6825 | .11102 | 279.92 | .00352 |
| 120. | 78.8861 | .10847 | 258.77 | .00348 | 120. | 78.9414 | .10867 | 260.21 | .00349 |
| 125. | 78.1395 | .10620 | 240.48 | .00344 | 125. | 78.1973 | .10640 | 241.81 | .00345 |
| 130. | 77.3889 | .10400 | 223.51 | .00341 | 130. | 77.4495 | .10421 | 224.76 | .00341 |
| 135. | 76.6336 | .10185 | 207.85 | .00337 | 135. | 76.6973 | .10208 | 209.03 | .00338 |
| 140. | 75.8730 | .09975 | 193.46 | .00333 | 140. | 75.9400 | .09998 | 194.56 | .00334 |
| 145. | 75.1066 | .09766 | 180.24 | .00330 | 145. | 75.1770 | .09790 | 181.28 | .00331 |
| 150. | 74.3336 | .09560 | 168.12 | .00326 | 150. | 74.4078 | .09585 | 169.11 | .00327 |
| 155. | 73.5536 | .09355 | 157.01 | .00322 | 155. | 73.6319 | .09381 | 157.96 | .00323 |
| 160. | 72.7660 | .09150 | 146.83 | .00318 | 160. | 72.8485 | .09177 | 147.73 | .00319 |
| 165. | 71.9699 | .08945 | 137.49 | .00314 | 165. | 72.0571 | .08973 | 138.35 | .00315 |
| 170. | 71.1645 | .08739 | 128.91 | .00309 | 170. | 71.2569 | .08769 | 129.73 | .00310 |
| 175. | 70.3491 | .08533 | 121.01 | .00305 | 175. | 70.4470 | .08564 | 121.81 | .00306 |
| 180. | 69.5225 | .08326 | 113.74 | .00300 | 180. | 69.6264 | .08358 | 114.52 | .00301 |
| 185. | 68.6836 | .08119 | 107.03 | .00294 | 185. | 68.7940 | .08152 | 107.78 | .00296 |
| 190. | 67.8311 | .07910 | 100.82 | .00289 | 190. | 67.9487 | .07944 | 101.56 | .00290 |
| 195. | 66.9634 | .07699 | 95.07 | .00283 | 195. | 67.0890 | .07736 | 95.79 | .00285 |
| 200. | 66.0780 | .07488 | 89.72 | .00277 | 200. | 66.2133 | .07526 | 90.43 | .00279 |
| 205. | 65.1757 | .07275 | 84.75 | .00271 | 205. | 65.3199 | .07315 | 85.45 | .00273 |
| 210. | 64.2516 | .07061 | 80.10 | .00264 | 210. | 64.4067 | .07103 | 80.79 | .00266 |
| 215. | 63.3040 | .06845 | 75.74 | .00257 | 215. | 63.4716 | .06889 | 76.43 | .00260 |
| 220. | 62.3302 | .06628 | 71.65 | .00250 | 220. | 62.5118 | .06675 | 72.34 | .00253 |
| 225. | 61.3268 | .06410 | 67.80 | .00243 | 225. | 61.5245 | .06459 | 68.49 | .00245 |
| 230. | 60.2907 | .06190 | 64.15 | .00235 | 230. | 60.5063 | .06242 | 64.86 | .00238 |
| 235. | 59.2160 | .05969 | 60.70 | .00226 | 235. | 59.4534 | .06023 | 61.42 | .00230 |
| 240. | 58.0991 | .05746 | 57.41 | .00218 | 240. | 58.3614 | .05804 | 58.15 | .00221 |
| 245. | 56.9333 | .05522 | 54.27 | .00209 | 245. | 57.2250 | .05584 | 55.03 | .00213 |
| 250. | 55.7115 | .05297 | 51.26 | .00200 | 250. | 56.0381 | .05363 | 52.04 | .00204 |
| 255. | 54.4248 | .05072 | 48.36 | .00190 | 255. | 54.7935 | .05143 | 49.17 | .00195 |
| 260. | 53.0522 | .04848 | 45.54 | .00181 | 260. | 53.4824 | .04924 | 46.40 | .00186 |
| 265. | 51.6096 | .04629 | 42.81 | .00171 | 265. | 52.0938 | .04710 | 43.72 | .00177 |
| 270. | 50.0886 | .04421 | 40.12 | .00161 | 270. | 50.6139 | .04505 | 41.10 | .00167 |
| 275. | 48.3547 | .04237 | 37.47 | .00151 | 275. | 49.0251 | .04323 | 38.54 | .00158 |
| 280. | 46.4916 | .04063 | 34.83 | .00141 | 280. | 47.3039 | .04148 | 36.01 | .00149 |
| 285. | 44.4114 | .038831 | 32.16 | .00128 | 285. | 45.4192 | .03925 | 33.49 | .00138 |
| 290. | 42.0430 | .03606 | 29.44 | .00115 | 290. | 43.3301 | .03709 | 30.96 | .00126 |
| 295. | 39.2971 | .03388 | 26.63 | .00103 | 295. | 40.9870 | .03501 | 28.42 | .00115 |
| 300. | 36.1123 | .03173 | 23.79 | .00093 | 300. | 38.3476 | .03300 | 25.86 | .00106 |
| 310. | 29.1434 | .02723 | 18.84 | .00093 | 310. | 32.3731 | .02907 | 21.09 | .00098 |
| 320. | 23.6803 | .02300 | 15.96 | .00117 | 320. | 26.8207 | .02521 | 17.71 | .00111 |
| 330. | 20.1511 | .02018 | 14.57 | .00154 | 330. | 22.7589 | .02209 | 15.80 | .00139 |
| 340. | 17.8303 | .01850 | 13.87 | .00194 | 340. | 19.9703 | .02000 | 14.78 | .00173 |
| 350. | 16.1803 | .01749 | 13.50 | .00234 | 350. | 17.9885 | .01869 | 14.22 | .00209 |
| 360. | 14.9271 | .01687 | 13.31 | .00273 | 360. | 16.5009 | .01784 | 13.90 | .00246 |
| 370. | 13.9287 | .01648 | 13.22 | .00311 | 370. | 15.3304 | .01730 | 13.72 | .00282 |
| 380. | 13.1052 | .01625 | 13.20 | .00348 | 380. | 14.3756 | .01696 | 13.63 | .00317 |
| 390. | 12.4082 | .01612 | 13.22 | .00385 | 390. | 13.5750 | .01674 | 13.61 | .00352 |
| 400. | 11.8067 | .01607 | 13.27 | .00421 | 400. | 12.8891 | .01662 | 13.62 | .00386 |
| 410. | 11.2794 | .01607 | 13.35 | .00457 | 410. | 12.2918 | .01657 | 13.67 | .00420 |
| 420. | 10.8115 | .01611 | 13.45 | .00493 | 420. | 11.7644 | .01657 | 13.74 | .00454 |
| 430. | 10.3920 | .01619 | 13.55 | .00529 | 430. | 11.2937 | .01661 | 13.82 | .00488 |
| 440. | 10.0126 | .01628 | 13.67 | .00565 | 440. | 10.8697 | .01667 | 13.92 | .00522 |
| 450. | 9.6672 | .01640 | 13.80 | .00601 | 450. | 10.4849 | .01676 | 14.04 | .00556 |
| 460. | 9.3506 | .01653 | 13.94 | .00638 | 460. | 10.1333 | .01687 | 14.16 | .00590 |
| 470. | 9.0590 | .01667 | 14.08 | .00674 | 470. | 9.8102 | .01700 | 14.29 | .00624 |
| 480. | 8.7891 | .01683 | 14.22 | .00710 | 480. | 9.5118 | .01713 | 14.42 | .00658 |
| 490. | 8.5382 | .01699 | 14.37 | .00747 | 490. | 9.2351 | .01728 | 14.56 | .00693 |
| 500. | 8.3043 | .01715 | 14.52 | .00784 | 500. | 8.9775 | .01743 | 14.70 | .00727 |
| 510. | 8.0853 | .01733 | 14.68 | .00821 | 510. | 8.7367 | .01759 | 14.85 | .00762 |
| 520. | 7.8798 | .01750 | 14.83 | .00858 | 520. | 8.5111 | .01776 | 15.00 | .00797 |
| 530. | 7.6864 | .01769 | 14.99 | .00896 | 530. | 8.2990 | .01793 | 15.15 | .00832 |
| 540. | 7.5039 | .01787 | 15.15 | .00934 | 540. | 8.0992 | .01811 | 15.30 | .00867 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen Isobars, Engr. Units.

| 1500. psia Isobar | | | | | 1600. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 99.969 | 81.9538 | .11913 | 347.24 | .00367 | * 100.109 | 81.9806 | .11923 | 348.62 | .00367 |
| 100. | 81.9493 | .11912 | 347.10 | .00367 | 105. | 81.2588 | .11648 | 326.36 | .00362 |
| 105. | 81.2099 | .11630 | 324.52 | .00362 | 110. | 80.5231 | .11387 | 304.19 | .00358 |
| 110. | 80.4726 | .11368 | 302.51 | .00357 | 115. | 79.7877 | .11140 | 283.03 | .00354 |
| 115. | 79.7353 | .11121 | 281.47 | .00353 | 120. | 79.0511 | .10906 | 263.09 | .00350 |
| 120. | 78.9964 | .10886 | 261.65 | .00349 | 125. | 78.3121 | .10681 | 244.49 | .00346 |
| 125. | 78.2549 | .10661 | 243.15 | .00346 | 130. | 77.5698 | .10464 | 227.26 | .00343 |
| 130. | 77.5098 | .10443 | 226.01 | .00342 | 135. | 76.8235 | .10252 | 211.38 | .00339 |
| 135. | 76.7606 | .10230 | 210.20 | .00339 | 140. | 76.0725 | .10043 | 196.77 | .00336 |
| 140. | 76.0065 | .10021 | 195.67 | .00335 | 145. | 75.3164 | .09838 | 183.37 | .00332 |
| 145. | 75.2469 | .09814 | 182.33 | .00331 | | | | | |
| 150. | 74.4815 | .09610 | 170.10 | .00328 | 150. | 74.5546 | .09635 | 171.09 | .00329 |
| 155. | 73.7095 | .09407 | 158.90 | .00324 | 155. | 73.7865 | .09432 | 159.84 | .00325 |
| 160. | 72.9304 | .09204 | 148.63 | .00320 | 160. | 73.0116 | .09230 | 149.52 | .00321 |
| 165. | 72.1436 | .09001 | 139.21 | .00316 | 165. | 72.2293 | .09029 | 140.07 | .00317 |
| 170. | 71.3483 | .08798 | 130.56 | .00312 | 170. | 71.4389 | .08827 | 131.38 | .00313 |
| 175. | 70.5438 | .08594 | 122.61 | .00307 | 175. | 70.6396 | .08624 | 123.40 | .00308 |
| 180. | 69.7290 | .08390 | 115.29 | .00302 | 180. | 69.8306 | .08421 | 116.06 | .00304 |
| 185. | 68.9031 | .08185 | 108.53 | .00297 | 185. | 69.0108 | .08217 | 109.28 | .00299 |
| 190. | 68.0647 | .07979 | 102.29 | .00292 | 190. | 68.1793 | .08013 | 103.02 | .00294 |
| 195. | 67.2127 | .07772 | 96.51 | .00287 | 195. | 67.3347 | .07807 | 97.22 | .00288 |
| 200. | 66.3455 | .07563 | 91.14 | .00281 | 200. | 66.4757 | .07600 | 91.83 | .00282 |
| 205. | 65.4616 | .07354 | 86.14 | .00275 | 205. | 65.6009 | .07393 | 86.83 | .00277 |
| 210. | 64.5590 | .07144 | 81.48 | .00268 | 210. | 64.7084 | .07184 | 82.16 | .00270 |
| 215. | 63.6356 | .06932 | 77.12 | .00262 | 215. | 63.7964 | .06975 | 77.79 | .00264 |
| 220. | 62.6892 | .06720 | 73.03 | .00255 | 220. | 62.8627 | .06765 | 73.70 | .00257 |
| 225. | 61.7171 | .06506 | 69.18 | .00248 | 225. | 61.9049 | .06553 | 69.86 | .00250 |
| 230. | 60.7162 | .06292 | 65.55 | .00240 | 230. | 60.9204 | .06341 | 66.23 | .00243 |
| 235. | 59.6833 | .06077 | 62.12 | .00233 | 235. | 59.9061 | .06129 | 62.81 | .00236 |
| 240. | 58.6143 | .05860 | 58.86 | .00225 | 240. | 58.8586 | .05916 | 59.56 | .00228 |
| 245. | 57.5048 | .05644 | 55.76 | .00217 | 245. | 57.7740 | .05702 | 56.48 | .00220 |
| 250. | 56.3497 | .05427 | 52.80 | .00208 | 250. | 56.6480 | .05489 | 53.53 | .00212 |
| 255. | 55.1430 | .05211 | 49.96 | .00200 | 255. | 55.4754 | .05276 | 50.72 | .00204 |
| 260. | 53.8773 | .04996 | 47.23 | .00191 | 260. | 54.2503 | .05066 | 48.02 | .00195 |
| 265. | 52.5442 | .04786 | 44.59 | .00182 | 265. | 52.9660 | .04860 | 45.42 | .00187 |
| 270. | 51.1331 | .04586 | 42.03 | .00173 | 270. | 51.6141 | .04662 | 42.90 | .00179 |
| 275. | 49.6310 | .04405 | 39.53 | .00165 | 275. | 50.1850 | .04483 | 40.46 | .00171 |
| 280. | 48.0216 | .04231 | 37.08 | .00156 | 280. | 48.6668 | .04309 | 38.08 | .00163 |
| 285. | 46.2842 | .04014 | 34.67 | .00146 | 285. | 47.0452 | .04099 | 35.76 | .00153 |
| 290. | 44.3932 | .03805 | 32.29 | .00136 | 290. | 45.3035 | .03896 | 33.47 | .00144 |
| 295. | 42.3189 | .03604 | 29.92 | .00126 | 295. | 43.4229 | .03701 | 31.23 | .00135 |
| 300. | 40.0347 | .03412 | 27.56 | .00117 | 300. | 41.3863 | .03514 | 29.02 | .00127 |
| 310. | 34.8761 | .03047 | 23.07 | .00106 | 310. | 36.8457 | .03166 | 24.78 | .00115 |
| 320. | 29.6303 | .02701 | 19.48 | .00111 | 320. | 32.0332 | .02846 | 21.17 | .00115 |
| 330. | 25.3207 | .02390 | 17.16 | .00131 | 330. | 27.7163 | .02551 | 18.57 | .00128 |
| 340. | 22.1526 | .02156 | 15.80 | .00159 | 340. | 24.3046 | .02307 | 16.91 | .00150 |
| 350. | 19.8495 | .01996 | 15.01 | .00191 | 350. | 21.7272 | .02126 | 15.88 | .00177 |
| 360. | 18.1201 | .01889 | 14.54 | .00224 | 360. | 19.7659 | .01999 | 15.25 | .00208 |
| 370. | 16.7684 | .01819 | 14.26 | .00258 | 370. | 18.2318 | .01912 | 14.86 | .00239 |
| 380. | 15.6746 | .01772 | 14.10 | .00291 | 380. | 16.9950 | .01852 | 14.61 | .00270 |
| 390. | 14.7641 | .01741 | 14.02 | .00324 | 390. | 15.9709 | .01811 | 14.47 | .00301 |
| 400. | 13.9894 | .01721 | 13.99 | .00357 | 400. | 15.1039 | .01783 | 14.39 | .00332 |
| 410. | 13.3184 | .01710 | 14.01 | .00389 | 410. | 14.3565 | .01766 | 14.36 | .00362 |
| 420. | 12.7289 | .01705 | 14.05 | .00421 | 420. | 13.7026 | .01756 | 14.37 | .00393 |
| 430. | 12.2048 | .01705 | 14.11 | .00453 | 430. | 13.1235 | .01751 | 14.41 | .00423 |
| 440. | 11.7345 | .01708 | 14.19 | .00485 | 440. | 12.6054 | .01751 | 14.47 | .00453 |
| 450. | 11.3089 | .01714 | 14.28 | .00517 | 450. | 12.1379 | .01754 | 14.54 | .00484 |
| 460. | 10.9211 | .01723 | 14.39 | .00549 | 460. | 11.7130 | .01760 | 14.63 | .00514 |
| 470. | 10.5656 | .01733 | 14.50 | .00581 | 470. | 11.3243 | .01768 | 14.73 | .00544 |
| 480. | 10.2381 | .01745 | 14.63 | .00613 | 480. | 10.9668 | .01778 | 14.84 | .00575 |
| 490. | 9.9348 | .01758 | 14.75 | .00646 | 490. | 10.6365 | .01789 | 14.96 | .00605 |
| 500. | 9.6529 | .01772 | 14.89 | .00678 | 500. | 10.3299 | .01801 | 15.08 | .00636 |
| 510. | 9.3899 | .01787 | 15.03 | .00711 | 510. | 10.0443 | .01815 | 15.21 | .00667 |
| 520. | 9.1438 | .01802 | 15.17 | .00744 | 520. | 9.7774 | .01829 | 15.34 | .00698 |
| 530. | 8.9128 | .01818 | 15.31 | .00777 | 530. | 9.5271 | .01844 | 15.48 | .00729 |
| 540. | 8.6953 | .01835 | 15.46 | .00810 | 540. | 9.2918 | .01859 | 15.62 | .00760 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 1700. psia Isobar | | | | | 1800. psia Isobar | | | | |
|-------------------|----------|---------------|---------------|---------------------|-------------------|----------|---------------|---------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | BTU/ft.h.R | micro-lb/ft.s | ft**2/h | R | lb/ft**3 | 8TU/ft.h.R | micro-lb/ft.s | ft**2/h |
| * 100.250 | 82.0074 | .11933 | 349.99 | .00368 | * 100.390 | 82.0341 | .11942 | 351.36 | .00368 |
| 105. | 81.3074 | .11666 | 328.20 | .00363 | 105. | 81.3559 | .11684 | 330.04 | .00363 |
| 110. | 80.5734 | .11405 | 305.88 | .00358 | 110. | 80.6235 | .11423 | 307.57 | .00359 |
| 115. | 79.8400 | .11159 | 284.58 | .00354 | 115. | 79.8920 | .11178 | 286.14 | .00355 |
| 120. | 79.1056 | .10926 | 264.53 | .00350 | 120. | 79.1598 | .10945 | 265.97 | .00351 |
| 125. | 78.3690 | .10702 | 245.83 | .00347 | 125. | 78.4257 | .10722 | 247.18 | .00348 |
| 130. | 77.6294 | .10485 | 228.52 | .00343 | 130. | 77.6887 | .10506 | 229.77 | .00344 |
| 135. | 76.8860 | .10274 | 212.55 | .00340 | 135. | 76.9481 | .10295 | 213.72 | .00341 |
| 140. | 76.1382 | .10066 | 197.87 | .00337 | 140. | 76.2034 | .10089 | 198.98 | .00337 |
| 145. | 75.3854 | .09862 | 184.41 | .00333 | 145. | 75.4539 | .09885 | 185.45 | .00334 |
| 150. | 74.6272 | .09659 | 172.08 | .00330 | 150. | 74.6992 | .09684 | 173.06 | .00330 |
| 155. | 73.8629 | .09458 | 160.77 | .00326 | 155. | 73.9388 | .09483 | 161.71 | .00327 |
| 160. | 73.0922 | .09257 | 150.42 | .00322 | 160. | 73.1720 | .09283 | 151.31 | .00323 |
| 165. | 72.3143 | .09056 | 140.92 | .00318 | 165. | 72.3985 | .09084 | 141.78 | .00319 |
| 170. | 71.5286 | .08855 | 132.21 | .00314 | 170. | 71.6175 | .08884 | 133.03 | .00315 |
| 175. | 70.7345 | .08654 | 124.20 | .00309 | 175. | 70.8284 | .08684 | 124.98 | .00311 |
| 180. | 69.9310 | .08452 | 116.82 | .00305 | 180. | 70.0303 | .08483 | 117.58 | .00306 |
| 185. | 69.1173 | .08250 | 110.02 | .00300 | 185. | 69.2225 | .08282 | 110.76 | .00301 |
| 190. | 68.2923 | .08046 | 103.74 | .00295 | 190. | 68.4039 | .08080 | 104.46 | .00296 |
| 195. | 67.4550 | .07842 | 97.92 | .00290 | 195. | 67.5736 | .07877 | 98.62 | .00291 |
| 200. | 66.6040 | .07637 | 92.53 | .00284 | 200. | 66.7303 | .07673 | 93.21 | .00286 |
| 205. | 65.7379 | .07431 | 87.51 | .00278 | 205. | 65.8726 | .07469 | 88.18 | .00280 |
| 210. | 64.8511 | .07224 | 82.83 | .00272 | 210. | 64.9992 | .07264 | 83.50 | .00274 |
| 215. | 63.9539 | .07017 | 78.46 | .00266 | 215. | 64.1085 | .07058 | 79.12 | .00268 |
| 220. | 63.0324 | .06808 | 74.37 | .00260 | 220. | 63.1985 | .06852 | 75.03 | .00262 |
| 225. | 62.0882 | .06599 | 70.52 | .00253 | 225. | 62.2674 | .06645 | 71.18 | .00255 |
| 230. | 61.1192 | .06390 | 66.90 | .00246 | 230. | 61.3129 | .06437 | 67.56 | .00248 |
| 235. | 60.1224 | .06180 | 63.49 | .00239 | 235. | 60.3327 | .06230 | 64.15 | .00241 |
| 240. | 59.0950 | .05969 | 60.25 | .00231 | 240. | 59.3240 | .06022 | 60.92 | .00234 |
| 245. | 58.0335 | .05759 | 57.18 | .00224 | 245. | 58.2840 | .05814 | 57.86 | .00227 |
| 250. | 56.9341 | .05549 | 54.25 | .00216 | 250. | 57.2093 | .05607 | 54.95 | .00219 |
| 255. | 55.7927 | .05340 | 51.46 | .00208 | 255. | 56.0963 | .05401 | 52.18 | .00212 |
| 260. | 54.6041 | .05133 | 48.78 | .00200 | 260. | 54.9409 | .05198 | 49.52 | .00204 |
| 265. | 53.3630 | .04931 | 46.21 | .00192 | 265. | 53.7385 | .04999 | 46.98 | .00196 |
| 270. | 52.0629 | .04736 | 43.74 | .00184 | 270. | 52.4841 | .04807 | 44.54 | .00189 |
| 275. | 50.6962 | .04558 | 41.34 | .00176 | 275. | 51.1717 | .04630 | 42.18 | .00181 |
| 280. | 49.2543 | .04385 | 39.02 | .00169 | 280. | 49.7948 | .04458 | 39.90 | .00174 |
| 285. | 47.7270 | .04180 | 36.76 | .00160 | 285. | 48.3460 | .04258 | 37.70 | .00166 |
| 290. | 46.1028 | .03983 | 34.56 | .00151 | 290. | 46.8173 | .04065 | 35.56 | .00158 |
| 295. | 44.3694 | .03793 | 32.40 | .00143 | 295. | 45.2003 | .03879 | 33.47 | .00150 |
| 300. | 42.5156 | .03610 | 30.30 | .00135 | 300. | 43.4876 | .03701 | 31.45 | .00143 |
| 310. | 38.4395 | .03272 | 26.28 | .00123 | 310. | 39.7679 | .03370 | 27.60 | .00131 |
| 320. | 34.0543 | .02967 | 22.72 | .00120 | 320. | 35.7569 | .03074 | 24.14 | .00126 |
| 330. | 29.8796 | .02690 | 19.96 | .00128 | 330. | 31.7947 | .02810 | 21.31 | .00130 |
| 340. | 26.3604 | .02448 | 18.06 | .00145 | 340. | 28.2751 | .02575 | 19.22 | .00143 |
| 350. | 23.5799 | .02255 | 16.81 | .00168 | 350. | 25.3690 | .02377 | 17.78 | .00162 |
| 360. | 21.4146 | .02111 | 16.01 | .00195 | 360. | 23.0407 | .02222 | 16.82 | .00186 |
| 370. | 19.7067 | .02008 | 15.49 | .00223 | 370. | 21.1769 | .02106 | 16.17 | .00211 |
| 380. | 18.3283 | .01935 | 15.16 | .00252 | 380. | 19.6640 | .02021 | 15.74 | .00238 |
| 390. | 17.1894 | .01884 | 14.94 | .00281 | 390. | 18.4127 | .01959 | 15.45 | .00265 |
| 400. | 16.2284 | .01848 | 14.81 | .00310 | 400. | 17.3580 | .01915 | 15.26 | .00293 |
| 410. | 15.4029 | .01824 | 14.75 | .00339 | 410. | 16.4540 | .01884 | 15.15 | .00320 |
| 420. | 14.6832 | .01808 | 14.72 | .00368 | 420. | 15.6677 | .01862 | 15.08 | .00348 |
| 430. | 14.0477 | .01799 | 14.73 | .00397 | 430. | 14.9752 | .01849 | 15.06 | .00375 |
| 440. | 13.4808 | .01795 | 14.76 | .00426 | 440. | 14.3587 | .01840 | 15.07 | .00402 |
| 450. | 12.9705 | .01795 | 14.82 | .00455 | 450. | 13.8050 | .01837 | 15.10 | .00430 |
| 460. | 12.5077 | .01798 | 14.89 | .00484 | 460. | 13.3039 | .01837 | 15.15 | .00457 |
| 470. | 12.0852 | .01803 | 14.97 | .00512 | 470. | 12.8472 | .01840 | 15.22 | .00484 |
| 480. | 11.6973 | .01811 | 15.07 | .00541 | 480. | 12.4285 | .01846 | 15.30 | .00512 |
| 490. | 11.3395 | .01821 | 15.17 | .00570 | 490. | 12.0428 | .01853 | 15.39 | .00539 |
| 500. | 11.0078 | .01831 | 15.28 | .00599 | 500. | 11.6859 | .01862 | 15.49 | .00567 |
| 510. | 10.6993 | .01843 | 15.40 | .00629 | 510. | 11.3542 | .01872 | 15.60 | .00595 |
| 520. | 10.4112 | .01856 | 15.53 | .00658 | 520. | 11.0448 | .01884 | 15.72 | .00623 |
| 530. | 10.1414 | .01870 | 15.65 | .00687 | 530. | 10.7554 | .01896 | 15.83 | .00651 |
| 540. | 9.8881 | .01884 | 15.79 | .00717 | 540. | 10.4838 | .01909 | 15.96 | .00679 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 1900. psia Isobar | | | | | 2000. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 100.529 | 82.0607 | .11952 | 352.72 | .00368 | * 100.669 | 82.0872 | .11962 | 354.08 | .00368 |
| 105. | 81.4042 | .11702 | 331.89 | .00364 | 105. | 81.4524 | .11720 | 333.74 | .00364 |
| 110. | 80.6734 | .11442 | 309.26 | .00359 | 110. | 80.7231 | .11460 | 310.96 | .00360 |
| 115. | 79.9438 | .11197 | 287.70 | .00355 | 115. | 79.9953 | .11216 | 289.26 | .00356 |
| 120. | 79.2137 | .10965 | 267.42 | .00352 | 120. | 79.2674 | .10984 | 268.86 | .00352 |
| 125. | 78.4820 | .10742 | 248.52 | .00348 | 125. | 78.5360 | .10762 | 249.86 | .00349 |
| 130. | 77.7476 | .10527 | 231.02 | .00345 | 130. | 77.8063 | .10548 | 232.27 | .00345 |
| 135. | 77.0099 | .10317 | 214.90 | .00341 | 135. | 77.0713 | .10339 | 216.07 | .00342 |
| 140. | 76.2682 | .10111 | 200.08 | .00338 | 140. | 76.3326 | .10134 | 201.18 | .00339 |
| 145. | 75.5220 | .09909 | 186.49 | .00335 | 145. | 75.5896 | .09932 | 187.53 | .00336 |
| 150. | 74.7708 | .09708 | 174.05 | .00331 | 150. | 74.8418 | .09732 | 175.03 | .00332 |
| 155. | 74.0140 | .09508 | 162.65 | .00328 | 155. | 74.0887 | .09534 | 163.29 | .00329 |
| 160. | 73.2513 | .09310 | 152.20 | .00324 | 160. | 73.3299 | .09336 | 153.09 | .00325 |
| 165. | 72.4820 | .09111 | 142.63 | .00320 | 165. | 72.5647 | .09138 | 143.48 | .00321 |
| 170. | 71.7055 | .08912 | 133.84 | .00316 | 170. | 71.7928 | .08941 | 134.66 | .00317 |
| 175. | 70.9213 | .08713 | 125.77 | .00312 | 175. | 71.0134 | .08743 | 126.55 | .00313 |
| 180. | 70.1286 | .08514 | 118.34 | .00307 | 180. | 70.2258 | .08544 | 119.10 | .00309 |
| 185. | 69.3265 | .08314 | 111.50 | .00303 | 185. | 69.4293 | .08345 | 112.23 | .00304 |
| 190. | 68.5142 | .08113 | 105.17 | .00298 | 190. | 68.6231 | .08146 | 105.88 | .00299 |
| 195. | 67.6906 | .07911 | 99.32 | .00293 | 195. | 67.8062 | .07946 | 100.02 | .00294 |
| 200. | 66.8548 | .07709 | 93.90 | .00288 | 200. | 66.9775 | .07745 | 94.58 | .00289 |
| 205. | 66.0053 | .07506 | 88.86 | .00282 | 205. | 66.1359 | .07543 | 89.52 | .00284 |
| 210. | 65.1409 | .07303 | 84.16 | .00276 | 210. | 65.2802 | .07341 | 84.82 | .00278 |
| 215. | 64.2601 | .07099 | 79.78 | .00270 | 215. | 64.4090 | .07139 | 80.43 | .00272 |
| 220. | 63.3612 | .06894 | 75.68 | .00264 | 220. | 63.5208 | .06936 | 76.32 | .00266 |
| 225. | 62.4425 | .06689 | 71.83 | .00258 | 225. | 62.6138 | .06733 | 72.48 | .00260 |
| 230. | 61.5019 | .06484 | 68.22 | .00251 | 230. | 61.6864 | .06530 | 68.86 | .00253 |
| 235. | 60.5373 | .06279 | 64.81 | .00244 | 235. | 60.7366 | .06327 | 65.45 | .00247 |
| 240. | 59.5463 | .06073 | 61.59 | .00237 | 240. | 59.7622 | .06124 | 62.24 | .00240 |
| 245. | 58.5263 | .05868 | 58.53 | .00230 | 245. | 58.7610 | .05921 | 59.19 | .00233 |
| 250. | 57.4745 | .05664 | 55.64 | .00223 | 250. | 57.7304 | .05719 | 56.30 | .00226 |
| 255. | 56.3876 | .05461 | 52.88 | .00215 | 255. | 56.6678 | .05519 | 53.56 | .00219 |
| 260. | 55.2624 | .05261 | 50.24 | .00208 | 260. | 55.5703 | .05322 | 50.94 | .00212 |
| 265. | 54.0950 | .05064 | 47.72 | .00200 | 265. | 54.4346 | .05128 | 48.44 | .00204 |
| 270. | 52.8813 | .04875 | 45.30 | .00193 | 270. | 53.2575 | .04941 | 46.05 | .00197 |
| 275. | 51.6166 | .04700 | 42.98 | .00186 | 275. | 52.0353 | .04767 | 43.75 | .00191 |
| 280. | 50.2960 | .04529 | 40.74 | .00179 | 280. | 50.7641 | .04598 | 41.54 | .00184 |
| 285. | 48.9140 | .04333 | 38.58 | .00172 | 285. | 49.4397 | .04405 | 39.42 | .00177 |
| 290. | 47.4648 | .04144 | 36.49 | .00164 | 290. | 48.0581 | .04220 | 37.37 | .00170 |
| 295. | 45.9427 | .03962 | 34.47 | .00157 | 295. | 46.6151 | .04041 | 35.39 | .00163 |
| 300. | 44.3427 | .03787 | 32.51 | .00150 | 300. | 45.1074 | .03870 | 33.48 | .00156 |
| 310. | 40.9037 | .03462 | 28.79 | .00139 | 310. | 41.8951 | .03549 | 29.88 | .00145 |
| 320. | 37.2070 | .03172 | 25.43 | .00132 | 320. | 38.4600 | .03264 | 26.60 | .00138 |
| 330. | 33.4765 | .02916 | 22.58 | .00134 | 330. | 34.9531 | .03012 | 23.77 | .00138 |
| 340. | 30.0281 | .02688 | 20.37 | .00143 | 340. | 31.6170 | .02790 | 21.48 | .00145 |
| 350. | 27.0657 | .02491 | 18.77 | .00159 | 350. | 28.6529 | .02596 | 19.76 | .00157 |
| 360. | 24.6204 | .02330 | 17.65 | .00179 | 360. | 26.1349 | .02432 | 18.50 | .00175 |
| 370. | 22.6260 | .02203 | 16.88 | .00202 | 370. | 24.0387 | .02299 | 17.61 | .00195 |
| 380. | 20.9911 | .02108 | 16.35 | .00226 | 380. | 22.2983 | .02194 | 16.98 | .00217 |
| 390. | 19.6331 | .02037 | 15.98 | .00252 | 390. | 20.8427 | .02115 | 16.54 | .00241 |
| 400. | 18.4473 | .01984 | 15.73 | .00278 | 400. | 19.6106 | .02054 | 16.22 | .00265 |
| 410. | 17.5058 | .01946 | 15.57 | .00304 | 410. | 18.5541 | .02009 | 16.01 | .00290 |
| 420. | 16.6532 | .01919 | 15.47 | .00330 | 420. | 17.6364 | .01976 | 15.86 | .00314 |
| 430. | 15.9035 | .01900 | 15.41 | .00356 | 430. | 16.8303 | .01952 | 15.77 | .00339 |
| 440. | 15.2374 | .01887 | 15.39 | .00382 | 440. | 16.1147 | .01936 | 15.72 | .00364 |
| 450. | 14.6401 | .01880 | 15.40 | .00408 | 450. | 15.4739 | .01925 | 15.71 | .00389 |
| 460. | 14.1003 | .01877 | 15.43 | .00434 | 460. | 14.8955 | .01919 | 15.72 | .00413 |
| 470. | 13.6091 | .01878 | 15.48 | .00460 | 470. | 14.3699 | .01916 | 15.75 | .00438 |
| 480. | 13.1595 | .01881 | 15.55 | .00486 | 480. | 13.8893 | .01917 | 15.80 | .00463 |
| 490. | 12.7458 | .01886 | 15.62 | .00512 | 490. | 13.4475 | .01920 | 15.86 | .00488 |
| 500. | 12.3633 | .01894 | 15.71 | .00539 | 500. | 13.0395 | .01926 | 15.93 | .00513 |
| 510. | 12.0083 | .01902 | 15.81 | .00565 | 510. | 12.6611 | .01933 | 16.02 | .00539 |
| 520. | 11.6776 | .01912 | 15.91 | .00592 | 520. | 12.3089 | .01941 | 16.11 | .00564 |
| 530. | 11.3684 | .01923 | 16.02 | .00618 | 530. | 11.9799 | .01951 | 16.21 | .00589 |
| 540. | 11.0784 | .01935 | 16.14 | .00645 | 540. | 11.6716 | .01961 | 16.32 | .00615 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 2200. psia Isobar | | | | | 2400. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 100.948 | 82.1400 | .11981 | 356.77 | .00369 | * 101.226 | 82.1925 | .12000 | 359.45 | .00369 |
| 105. | 81.5481 | .11756 | 337.46 | .00365 | 105. | 81.6431 | .11791 | 341.20 | .00366 |
| 110. | 80.8219 | .11497 | 314.36 | .00361 | 110. | 80.9198 | .11533 | 317.78 | .00362 |
| 115. | 80.0078 | .11253 | 292.39 | .00357 | 115. | 80.1993 | .11291 | 295.53 | .00358 |
| 120. | 79.3740 | .11023 | 271.76 | .00353 | 120. | 79.4796 | .11061 | 274.66 | .00354 |
| 125. | 78.6493 | .10802 | 252.55 | .00350 | 125. | 78.7594 | .10842 | 255.24 | .00351 |
| 130. | 77.9226 | .10589 | 234.78 | .00347 | 130. | 78.0376 | .10630 | 237.29 | .00348 |
| 135. | 77.1931 | .10382 | 218.42 | .00344 | 135. | 77.3135 | .10424 | 220.76 | .00345 |
| 140. | 76.4602 | .10178 | 203.39 | .00340 | 140. | 76.5863 | .10223 | 205.59 | .00342 |
| 145. | 75.7235 | .09978 | 189.61 | .00337 | 145. | 75.8557 | .10024 | 191.68 | .00339 |
| 150. | 74.9824 | .09780 | 176.99 | .00334 | 150. | 75.1210 | .09828 | 178.95 | .00336 |
| 155. | 74.2364 | .09584 | 165.44 | .00330 | 155. | 74.3820 | .09633 | 167.30 | .00332 |
| 160. | 73.4852 | .09388 | 154.86 | .00327 | 160. | 73.6381 | .09439 | 156.63 | .00329 |
| 165. | 72.7282 | .09192 | 145.17 | .00323 | 165. | 72.8890 | .09245 | 146.86 | .00325 |
| 170. | 71.9649 | .08996 | 136.28 | .00319 | 170. | 72.1340 | .09052 | 137.89 | .00321 |
| 175. | 71.1948 | .08801 | 128.11 | .00315 | 175. | 71.3729 | .08858 | 129.66 | .00318 |
| 180. | 70.4173 | .08605 | 120.60 | .00311 | 180. | 70.6049 | .08664 | 122.10 | .00313 |
| 185. | 69.6316 | .08408 | 113.68 | .00307 | 185. | 69.8296 | .08469 | 115.13 | .00309 |
| 190. | 68.8371 | .08211 | 107.30 | .00302 | 190. | 69.0461 | .08275 | 108.70 | .00305 |
| 195. | 68.0328 | .08013 | 101.39 | .00297 | 195. | 68.2538 | .08079 | 102.76 | .00300 |
| 200. | 67.2179 | .07815 | 95.92 | .00292 | 200. | 67.4519 | .07884 | 97.25 | .00295 |
| 205. | 66.3914 | .07616 | 90.84 | .00287 | 205. | 66.6396 | .07688 | 92.14 | .00290 |
| 210. | 65.5522 | .07417 | 86.12 | .00282 | 210. | 65.8157 | .07491 | 87.40 | .00285 |
| 215. | 64.6991 | .07218 | 81.71 | .00276 | 215. | 64.9795 | .07295 | 82.97 | .00280 |
| 220. | 63.8308 | .07018 | 77.59 | .00270 | 220. | 64.1297 | .07099 | 78.84 | .00274 |
| 225. | 62.9460 | .06819 | 73.74 | .00264 | 225. | 63.2651 | .06902 | 74.97 | .00268 |
| 230. | 62.0431 | .06619 | 70.12 | .00258 | 230. | 62.3846 | .06706 | 71.35 | .00262 |
| 235. | 61.1206 | .06420 | 66.71 | .00252 | 235. | 61.4868 | .06511 | 67.94 | .00256 |
| 240. | 60.1767 | .06221 | 63.50 | .00245 | 240. | 60.5704 | .06316 | 64.74 | .00250 |
| 245. | 59.2097 | .06023 | 60.47 | .00239 | 245. | 59.6338 | .06122 | 61.71 | .00244 |
| 250. | 58.2176 | .05827 | 57.60 | .00232 | 250. | 58.6756 | .05929 | 58.85 | .00238 |
| 255. | 57.1983 | .05631 | 54.87 | .00225 | 255. | 57.6943 | .05738 | 56.14 | .00231 |
| 260. | 56.1499 | .05439 | 52.28 | .00219 | 260. | 56.6881 | .05550 | 53.56 | .00225 |
| 265. | 55.0700 | .05250 | 49.81 | .00212 | 265. | 55.6557 | .05366 | 51.12 | .00219 |
| 270. | 53.9563 | .05068 | 47.46 | .00205 | 270. | 54.5952 | .05187 | 48.79 | .00213 |
| 275. | 52.8065 | .04896 | 45.20 | .00199 | 275. | 53.5052 | .05018 | 46.57 | .00207 |
| 280. | 51.6181 | .04729 | 43.05 | .00193 | 280. | 52.3841 | .04853 | 44.45 | .00201 |
| 285. | 50.3889 | .04563 | 40.98 | .00186 | 285. | 51.2306 | .04673 | 42.42 | .00195 |
| 290. | 49.1164 | .04396 | 38.99 | .00180 | 290. | 50.0435 | .04499 | 40.48 | .00189 |
| 295. | 47.7989 | .04191 | 37.09 | .00174 | 295. | 48.8217 | .04331 | 38.62 | .00183 |
| 300. | 46.4347 | .04025 | 35.26 | .00168 | 300. | 47.5649 | .04169 | 36.85 | .00178 |
| 310. | 43.5667 | .03713 | 31.82 | .00157 | 310. | 44.9476 | .03864 | 33.52 | .00168 |
| 320. | 40.5343 | .03433 | 28.68 | .00150 | 320. | 42.2074 | .03589 | 30.50 | .00161 |
| 330. | 37.4139 | .03187 | 25.91 | .00147 | 330. | 39.3892 | .03345 | 27.79 | .00157 |
| 340. | 34.3443 | .02971 | 23.56 | .00150 | 340. | 36.5754 | .03131 | 25.44 | .00157 |
| 350. | 31.4797 | .02782 | 21.67 | .00158 | 350. | 33.8715 | .02945 | 23.47 | .00162 |
| 360. | 28.9239 | .02618 | 20.21 | .00171 | 360. | 31.3709 | .02782 | 21.87 | .00171 |
| 370. | 26.7086 | .02478 | 19.11 | .00187 | 370. | 29.1275 | .02640 | 20.62 | .00183 |
| 380. | 24.8145 | .02363 | 18.30 | .00205 | 380. | 27.1531 | .02520 | 19.65 | .00198 |
| 390. | 23.1995 | .02269 | 17.70 | .00225 | 390. | 25.4317 | .02418 | 18.90 | .00215 |
| 400. | 21.8164 | .02196 | 17.26 | .00246 | 400. | 23.9341 | .02335 | 18.34 | .00233 |
| 410. | 20.6228 | .02138 | 16.93 | .00267 | 410. | 22.6276 | .02267 | 17.91 | .00252 |
| 420. | 19.5830 | .02094 | 16.70 | .00290 | 420. | 21.4818 | .02213 | 17.58 | .00272 |
| 430. | 18.6487 | .02060 | 16.53 | .00312 | 430. | 20.4700 | .02170 | 17.34 | .00292 |
| 440. | 17.8573 | .02035 | 16.42 | .00334 | 440. | 19.5701 | .02137 | 17.16 | .00312 |
| 450. | 17.1314 | .02017 | 16.35 | .00357 | 450. | 18.7642 | .02111 | 17.04 | .00333 |
| 460. | 16.4771 | .02004 | 16.32 | .00380 | 460. | 18.0375 | .02092 | 16.95 | .00353 |
| 470. | 15.8833 | .01996 | 16.31 | .00402 | 470. | 17.3781 | .02078 | 16.90 | .00374 |
| 480. | 15.3412 | .01992 | 16.32 | .00425 | 480. | 16.7765 | .02069 | 16.88 | .00395 |
| 490. | 14.8437 | .01990 | 16.36 | .00448 | 490. | 16.2248 | .02063 | 16.88 | .00416 |
| 500. | 14.3849 | .01992 | 16.40 | .00471 | 500. | 15.7164 | .02060 | 16.90 | .00437 |
| 510. | 13.9601 | .01995 | 16.46 | .00494 | 510. | 15.2460 | .02059 | 16.93 | .00458 |
| 520. | 13.5651 | .02000 | 16.53 | .00517 | 520. | 14.8090 | .02061 | 16.98 | .00480 |
| 530. | 13.1966 | .02007 | 16.61 | .00540 | 530. | 14.4017 | .02065 | 17.04 | .00501 |
| 540. | 12.8518 | .02015 | 16.70 | .00564 | 540. | 14.0208 | .02070 | 17.11 | .00522 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 2600. psia Isobar | | | | | 2800. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 101.504 | 82.2447 | .12019 | 362.11 | .00370 | * 101.731 | 82.2965 | .12039 | 354.75 | .00370 |
| 105. | 81.7374 | .11827 | 344.95 | .00367 | 105. | 81.8311 | .11862 | 348.71 | .00367 |
| 110. | 81.0170 | .11569 | 321.20 | .00362 | 110. | 81.1134 | .11605 | 324.63 | .00363 |
| 115. | 80.2999 | .11328 | 298.68 | .00359 | 115. | 80.3997 | .11365 | 301.83 | .00360 |
| 120. | 79.5842 | .11100 | 277.56 | .00356 | 120. | 79.6878 | .11138 | 280.47 | .00357 |
| 125. | 78.8684 | .10881 | 257.94 | .00352 | 125. | 78.9763 | .10921 | 260.63 | .00354 |
| 130. | 78.1514 | .10671 | 239.80 | .00349 | 130. | 78.2640 | .10712 | 242.31 | .00351 |
| 135. | 77.4325 | .10467 | 223.11 | .00346 | 135. | 77.5501 | .10509 | 225.45 | .00348 |
| 140. | 76.7109 | .10267 | 207.79 | .00343 | 140. | 76.8340 | .10310 | 209.99 | .00345 |
| 145. | 75.9882 | .10070 | 193.76 | .00340 | 145. | 76.1150 | .10115 | 195.83 | .00342 |
| 150. | 75.2578 | .09875 | 180.91 | .00337 | 150. | 75.3928 | .09922 | 182.86 | .00339 |
| 155. | 74.5255 | .09682 | 169.16 | .00334 | 155. | 74.6669 | .09730 | 171.00 | .00336 |
| 160. | 73.7887 | .09490 | 158.39 | .00331 | 160. | 73.9371 | .09540 | 160.15 | .00332 |
| 165. | 73.0471 | .09298 | 148.54 | .00327 | 165. | 73.2028 | .09350 | 150.21 | .00329 |
| 170. | 72.3003 | .09106 | 139.50 | .00324 | 170. | 72.4637 | .09160 | 141.10 | .00326 |
| 175. | 71.5477 | .08914 | 131.21 | .00320 | 175. | 71.7194 | .08970 | 132.74 | .00322 |
| 180. | 70.7889 | .08722 | 123.58 | .00316 | 180. | 70.9695 | .08780 | 125.06 | .00318 |
| 185. | 70.0234 | .08530 | 116.56 | .00312 | 185. | 70.2133 | .08590 | 117.98 | .00314 |
| 190. | 69.2505 | .08337 | 110.09 | .00307 | 190. | 69.4505 | .08399 | 111.46 | .00310 |
| 195. | 68.4696 | .08144 | 104.10 | .00303 | 195. | 68.6805 | .08208 | 105.44 | .00306 |
| 200. | 67.6800 | .07951 | 98.57 | .00298 | 200. | 67.9025 | .08017 | 99.87 | .00301 |
| 205. | 66.8809 | .07758 | 93.43 | .00293 | 205. | 67.1160 | .07826 | 94.70 | .00296 |
| 210. | 66.0716 | .07564 | 88.66 | .00288 | 210. | 66.3201 | .07635 | 89.90 | .00292 |
| 215. | 65.2510 | .07370 | 84.21 | .00283 | 215. | 65.5143 | .07444 | 85.43 | .00287 |
| 220. | 64.4183 | .07177 | 80.06 | .00278 | 220. | 64.6975 | .07253 | 81.27 | .00281 |
| 225. | 63.5725 | .06983 | 76.19 | .00272 | 225. | 63.8691 | .07062 | 77.38 | .00276 |
| 230. | 62.7125 | .06790 | 72.55 | .00267 | 230. | 63.0280 | .06873 | 73.73 | .00271 |
| 235. | 61.8373 | .06598 | 69.14 | .00261 | 235. | 62.1735 | .06683 | 70.31 | .00265 |
| 240. | 60.9466 | .06407 | 65.93 | .00255 | 240. | 61.3044 | .06495 | 67.10 | .00260 |
| 245. | 60.0364 | .06216 | 62.91 | .00249 | 245. | 60.4200 | .06308 | 64.08 | .00254 |
| 250. | 59.1085 | .06028 | 60.06 | .00243 | 250. | 59.5191 | .06123 | 61.22 | .00248 |
| 255. | 58.1605 | .05841 | 57.35 | .00237 | 255. | 58.6010 | .05939 | 58.53 | .00242 |
| 260. | 57.1914 | .05657 | 54.79 | .00231 | 260. | 57.6646 | .05759 | 55.98 | .00237 |
| 265. | 56.1999 | .05476 | 52.36 | .00225 | 265. | 56.7091 | .05581 | 53.56 | .00231 |
| 270. | 55.1857 | .05301 | 50.06 | .00219 | 270. | 55.7336 | .05409 | 51.27 | .00226 |
| 275. | 54.1455 | .05134 | 47.86 | .00214 | 275. | 54.7376 | .05245 | 49.08 | .00220 |
| 280. | 53.0805 | .04971 | 45.76 | .00208 | 280. | 53.7203 | .05083 | 47.01 | .00215 |
| 285. | 51.9892 | .04796 | 43.77 | .00203 | 285. | 52.6812 | .04913 | 45.03 | .00210 |
| 290. | 50.8710 | .04626 | 41.86 | .00197 | 290. | 51.6203 | .04747 | 43.15 | .00204 |
| 295. | 49.7255 | .04462 | 40.04 | .00191 | 295. | 50.5373 | .04587 | 41.36 | .00199 |
| 300. | 48.5527 | .04304 | 38.30 | .00186 | 300. | 49.4325 | .04432 | 39.65 | .00194 |
| 310. | 46.1277 | .04006 | 35.05 | .00177 | 310. | 47.1607 | .04139 | 36.46 | .00186 |
| 320. | 43.6088 | .03734 | 32.11 | .00170 | 320. | 44.8157 | .03871 | 33.57 | .00179 |
| 330. | 41.0260 | .03492 | 29.46 | .00166 | 330. | 42.4196 | .03630 | 30.98 | .00174 |
| 340. | 38.4318 | .03278 | 27.13 | .00165 | 340. | 40.0083 | .03416 | 28.67 | .00172 |
| 350. | 35.8975 | .03092 | 25.13 | .00167 | 350. | 37.6313 | .03229 | 26.65 | .00173 |
| 360. | 33.4963 | .02929 | 23.45 | .00173 | 360. | 35.3435 | .03065 | 24.92 | .00177 |
| 370. | 31.2835 | .02787 | 22.08 | .00183 | 370. | 33.1932 | .02922 | 23.48 | .00184 |
| 380. | 29.2864 | .02664 | 20.99 | .00195 | 380. | 31.2125 | .02797 | 22.29 | .00194 |
| 390. | 27.5075 | .02558 | 20.12 | .00209 | 390. | 29.4144 | .02688 | 21.32 | .00206 |
| 400. | 25.9331 | .02468 | 19.44 | .00224 | 400. | 27.7969 | .02594 | 20.55 | .00219 |
| 410. | 24.5420 | .02393 | 18.91 | .00241 | 410. | 26.3484 | .02514 | 19.93 | .00234 |
| 420. | 23.3104 | .02331 | 18.50 | .00258 | 420. | 25.0525 | .02446 | 19.43 | .00249 |
| 430. | 22.2158 | .02280 | 18.18 | .00277 | 430. | 23.8915 | .02389 | 19.04 | .00265 |
| 440. | 21.2380 | .02240 | 17.94 | .00295 | 440. | 22.8487 | .02342 | 18.73 | .00282 |
| 450. | 20.3597 | .02207 | 17.75 | .00314 | 450. | 21.9070 | .02303 | 18.49 | .00299 |
| 460. | 19.5663 | .02182 | 17.62 | .00333 | 460. | 21.0542 | .02272 | 18.30 | .00316 |
| 470. | 18.8457 | .02162 | 17.52 | .00352 | 470. | 20.2779 | .02247 | 18.16 | .00334 |
| 480. | 18.1878 | .02147 | 17.46 | .00371 | 480. | 19.5681 | .02227 | 18.06 | .00352 |
| 490. | 17.5843 | .02137 | 17.42 | .00390 | 490. | 18.9165 | .02212 | 17.99 | .00370 |
| 500. | 17.0287 | .02129 | 17.41 | .00410 | 500. | 18.3156 | .02200 | 17.94 | .00388 |
| 510. | 16.5140 | .02125 | 17.42 | .00429 | 510. | 17.7596 | .02192 | 17.92 | .00406 |
| 520. | 16.0363 | .02123 | 17.44 | .00449 | 520. | 17.2432 | .02187 | 17.92 | .00424 |
| 530. | 15.5913 | .02124 | 17.48 | .00469 | 530. | 16.7621 | .02184 | 17.93 | .00442 |
| 540. | 15.1754 | .02126 | 17.52 | .00488 | 540. | 16.3124 | .02183 | 17.96 | .00460 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 3000. psia Isobar | | | | | 3200. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 102.058 | 82.3481 | .12058 | 367.36 | .00371 | * 102.334 | 82.3994 | .12077 | 369.96 | .00371 |
| 105. | 81.9240 | .11897 | 352.49 | .00368 | 105. | 82.0163 | .11932 | 355.29 | .00369 |
| 110. | 81.2090 | .11641 | 328.08 | .00364 | 110. | 81.3039 | .11676 | 331.54 | .00365 |
| 115. | 80.4986 | .11401 | 304.99 | .00361 | 115. | 80.5966 | .11438 | 308.16 | .00362 |
| 120. | 79.7905 | .11175 | 283.39 | .00358 | 120. | 79.8923 | .11213 | 285.31 | .00359 |
| 125. | 79.0832 | .10960 | 263.33 | .00355 | 125. | 79.1890 | .10998 | 266.04 | .00356 |
| 130. | 78.3755 | .10752 | 244.82 | .00352 | 130. | 78.4858 | .10792 | 247.33 | .00353 |
| 135. | 77.6665 | .10550 | 227.70 | .00349 | 135. | 77.7816 | .10592 | 239.14 | .00350 |
| 140. | 76.9556 | .10353 | 212.19 | .00346 | 140. | 77.0759 | .10396 | 214.38 | .00347 |
| 145. | 76.2423 | .10159 | 197.89 | .00343 | 145. | 76.3680 | .10204 | 199.96 | .00345 |
| 150. | 75.5260 | .09968 | 184.81 | .00340 | 150. | 75.6575 | .10014 | 186.76 | .00342 |
| 155. | 74.8065 | .09778 | 172.85 | .00337 | 155. | 74.9441 | .09826 | 174.69 | .00339 |
| 160. | 74.0833 | .09589 | 161.90 | .00334 | 160. | 74.2274 | .09639 | 163.65 | .00336 |
| 165. | 73.3561 | .09401 | 151.88 | .00331 | 165. | 73.5070 | .09452 | 153.54 | .00333 |
| 170. | 72.6245 | .09213 | 142.70 | .00328 | 170. | 72.7827 | .09266 | 144.28 | .00329 |
| 175. | 71.8881 | .09025 | 134.27 | .00324 | 175. | 72.0540 | .09080 | 135.79 | .00326 |
| 180. | 71.1466 | .08837 | 126.52 | .00320 | 180. | 71.3207 | .08893 | 127.98 | .00322 |
| 185. | 70.3995 | .08649 | 119.40 | .00316 | 185. | 70.5822 | .08707 | 120.80 | .00319 |
| 190. | 69.6464 | .08460 | 112.83 | .00312 | 190. | 69.8382 | .08520 | 114.19 | .00315 |
| 195. | 68.8866 | .08272 | 106.77 | .00308 | 195. | 69.0883 | .08334 | 108.08 | .00311 |
| 200. | 68.1197 | .08083 | 101.16 | .00304 | 200. | 68.3319 | .08147 | 102.43 | .00307 |
| 205. | 67.3450 | .07894 | 95.96 | .00299 | 205. | 67.5685 | .07960 | 97.20 | .00302 |
| 210. | 66.5620 | .07705 | 91.13 | .00295 | 210. | 66.7975 | .07773 | 92.34 | .00298 |
| 215. | 65.7699 | .07516 | 86.64 | .00290 | 215. | 66.0184 | .07587 | 87.83 | .00293 |
| 220. | 64.9681 | .07328 | 82.45 | .00285 | 220. | 65.2306 | .07401 | 83.62 | .00288 |
| 225. | 64.1558 | .07140 | 78.55 | .00280 | 225. | 64.4334 | .07215 | 79.70 | .00283 |
| 230. | 63.3322 | .06952 | 74.89 | .00275 | 230. | 63.6261 | .07031 | 76.02 | .00278 |
| 235. | 62.4967 | .06766 | 71.46 | .00269 | 235. | 62.8082 | .06847 | 72.59 | .00273 |
| 240. | 61.6484 | .06581 | 68.24 | .00264 | 240. | 61.9789 | .06664 | 69.35 | .00268 |
| 245. | 60.7864 | .06397 | 65.21 | .00259 | 245. | 61.1376 | .06483 | 66.32 | .00263 |
| 250. | 59.9102 | .06215 | 62.36 | .00253 | 250. | 60.2837 | .06304 | 63.47 | .00258 |
| 255. | 59.0188 | .06034 | 59.67 | .00248 | 255. | 59.4166 | .06126 | 60.77 | .00252 |
| 260. | 58.1116 | .05857 | 57.12 | .00242 | 260. | 58.5357 | .05951 | 58.23 | .00247 |
| 265. | 57.1880 | .05683 | 54.71 | .00237 | 265. | 57.6405 | .05780 | 55.82 | .00242 |
| 270. | 56.2473 | .05513 | 52.43 | .00231 | 270. | 56.7307 | .05613 | 53.54 | .00237 |
| 275. | 55.2890 | .05351 | 50.26 | .00226 | 275. | 55.8058 | .05453 | 51.38 | .00232 |
| 280. | 54.3129 | .05191 | 48.20 | .00221 | 280. | 54.8657 | .05295 | 49.33 | .00227 |
| 285. | 53.3186 | .05024 | 46.24 | .00216 | 285. | 53.9103 | .05131 | 47.39 | .00222 |
| 290. | 52.3062 | .04862 | 44.37 | .00211 | 290. | 52.9397 | .04972 | 45.53 | .00217 |
| 295. | 51.2757 | .04705 | 42.60 | .00206 | 295. | 51.9541 | .04818 | 43.77 | .00213 |
| 300. | 50.2276 | .04553 | 40.91 | .00202 | 300. | 50.9540 | .04669 | 42.10 | .00209 |
| 310. | 48.0814 | .04265 | 37.77 | .00194 | 310. | 48.9132 | .04385 | 38.99 | .00201 |
| 320. | 45.8772 | .04000 | 34.92 | .00187 | 320. | 46.8260 | .04123 | 35.18 | .00194 |
| 330. | 43.6323 | .03760 | 32.36 | .00182 | 330. | 44.7063 | .03885 | 33.64 | .00189 |
| 340. | 41.3731 | .03547 | 30.07 | .00179 | 340. | 42.5745 | .03671 | 31.37 | .00186 |
| 350. | 39.1150 | .03358 | 28.05 | .00179 | 350. | 40.4572 | .03481 | 29.35 | .00185 |
| 360. | 36.9593 | .03193 | 26.30 | .00182 | 360. | 38.3358 | .03314 | 27.59 | .00187 |
| 370. | 34.8856 | .03048 | 24.80 | .00187 | 370. | 36.3921 | .03167 | 26.05 | .00191 |
| 380. | 32.9447 | .02921 | 23.54 | .00195 | 380. | 34.5033 | .03038 | 24.74 | .00197 |
| 390. | 31.1545 | .02810 | 22.50 | .00205 | 390. | 32.7384 | .02925 | 23.64 | .00205 |
| 400. | 29.5203 | .02713 | 21.64 | .00216 | 400. | 31.1070 | .02826 | 22.71 | .00215 |
| 410. | 28.0381 | .02629 | 20.94 | .00229 | 410. | 29.6101 | .02739 | 21.94 | .00226 |
| 420. | 26.6980 | .02557 | 20.37 | .00243 | 420. | 28.2429 | .02663 | 21.30 | .00239 |
| 430. | 25.4870 | .02495 | 19.91 | .00257 | 430. | 26.9967 | .02597 | 20.78 | .00252 |
| 440. | 24.3913 | .02442 | 19.54 | .00272 | 440. | 25.8612 | .02540 | 20.35 | .00265 |
| 450. | 23.3976 | .02396 | 19.24 | .00288 | 450. | 24.8254 | .02492 | 20.00 | .00279 |
| 460. | 22.4935 | .02362 | 19.01 | .00304 | 460. | 23.8787 | .02451 | 19.72 | .00294 |
| 470. | 21.6681 | .02332 | 18.82 | .00320 | 470. | 23.0111 | .02417 | 19.49 | .00309 |
| 480. | 20.9117 | .02307 | 18.68 | .00336 | 480. | 22.2138 | .02388 | 19.31 | .00324 |
| 490. | 20.2160 | .02288 | 18.57 | .00353 | 490. | 21.4788 | .02364 | 19.16 | .00339 |
| 500. | 19.5738 | .02272 | 18.49 | .00369 | 500. | 20.7991 | .02345 | 19.05 | .00354 |
| 510. | 18.9790 | .02260 | 18.44 | .00386 | 510. | 20.1687 | .02329 | 18.97 | .00370 |
| 520. | 18.4267 | .02252 | 18.41 | .00403 | 520. | 19.5822 | .02317 | 18.91 | .00386 |
| 530. | 17.9109 | .02245 | 18.40 | .00420 | 530. | 19.0350 | .02307 | 18.88 | .00401 |
| 540. | 17.4291 | .02242 | 18.40 | .00437 | 540. | 18.5231 | .02301 | 18.86 | .00417 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 3400. psia Isobar | | | | | 3600. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 102.610 | 82.4503 | .12096 | 372.53 | .00372 | * 102.884 | 82.5010 | .12115 | 375.08 | .00372 |
| 105. | 82.1079 | .11967 | 360.10 | .00370 | 105. | 82.1988 | .12001 | 363.93 | .00370 |
| 110. | 81.3980 | .11712 | 335.01 | .00366 | 110. | 81.4914 | .11747 | 338.48 | .00367 |
| 115. | 80.6939 | .11474 | 311.34 | .00363 | 115. | 80.7903 | .11510 | 314.52 | .00364 |
| 120. | 79.9931 | .11250 | 289.23 | .00360 | 120. | 80.0930 | .11287 | 292.16 | .00361 |
| 125. | 79.2938 | .11037 | 268.74 | .00357 | 125. | 79.3977 | .11075 | 271.45 | .00358 |
| 130. | 78.5950 | .10831 | 249.85 | .00354 | 130. | 78.7030 | .10871 | 252.37 | .00355 |
| 135. | 77.8955 | .10633 | 232.49 | .00352 | 135. | 78.0081 | .10673 | 234.83 | .00353 |
| 140. | 77.1947 | .10438 | 216.58 | .00349 | 140. | 77.3123 | .10480 | 218.77 | .00350 |
| 145. | 76.4922 | .10248 | 202.02 | .00346 | 145. | 76.6149 | .10291 | 204.08 | .00348 |
| 150. | 75.7873 | .10054 | 188.70 | .00343 | 150. | 75.9155 | .10104 | 190.64 | .00345 |
| 155. | 75.0799 | .09873 | 176.53 | .00341 | 155. | 75.2139 | .09919 | 178.36 | .00342 |
| 160. | 74.3694 | .09687 | 165.39 | .00338 | 160. | 74.5095 | .09736 | 167.13 | .00339 |
| 165. | 73.6557 | .09502 | 155.20 | .00335 | 165. | 73.8022 | .09552 | 156.85 | .00336 |
| 170. | 72.9384 | .09318 | 145.86 | .00331 | 170. | 73.0917 | .09369 | 147.44 | .00333 |
| 175. | 72.2171 | .09133 | 137.30 | .00328 | 175. | 72.3776 | .09187 | 138.80 | .00330 |
| 180. | 71.4916 | .08949 | 129.43 | .00325 | 180. | 71.6596 | .09004 | 130.88 | .00327 |
| 185. | 70.7615 | .08764 | 122.20 | .00321 | 185. | 70.9375 | .08821 | 123.59 | .00323 |
| 190. | 70.0263 | .08580 | 115.53 | .00317 | 190. | 70.2108 | .08638 | 116.87 | .00319 |
| 195. | 69.2858 | .08395 | 109.38 | .00313 | 195. | 69.4793 | .08455 | 110.67 | .00316 |
| 200. | 68.5394 | .08210 | 103.70 | .00309 | 200. | 68.7424 | .08272 | 104.95 | .00312 |
| 205. | 67.7867 | .08025 | 98.43 | .00305 | 205. | 67.9999 | .08089 | 99.65 | .00308 |
| 210. | 67.0272 | .07841 | 93.54 | .00301 | 210. | 67.2512 | .07907 | 94.73 | .00303 |
| 215. | 66.2603 | .07656 | 89.00 | .00296 | 215. | 66.4960 | .07725 | 90.16 | .00299 |
| 220. | 65.4856 | .07472 | 84.77 | .00291 | 220. | 65.7336 | .07543 | 85.91 | .00295 |
| 225. | 64.7025 | .07289 | 80.83 | .00287 | 225. | 64.9638 | .07362 | 81.94 | .00290 |
| 230. | 63.9104 | .07107 | 77.14 | .00282 | 230. | 64.1859 | .07182 | 78.24 | .00285 |
| 235. | 63.1088 | .06926 | 73.69 | .00277 | 235. | 63.3996 | .07002 | 74.77 | .00281 |
| 240. | 62.2972 | .06745 | 70.45 | .00272 | 240. | 62.6043 | .06825 | 71.52 | .00276 |
| 245. | 61.4749 | .06567 | 67.41 | .00267 | 245. | 61.7996 | .06648 | 68.47 | .00271 |
| 250. | 60.6415 | .06390 | 64.55 | .00262 | 250. | 60.9850 | .06474 | 65.60 | .00266 |
| 255. | 59.7965 | .06215 | 61.85 | .00257 | 255. | 60.1602 | .06302 | 62.90 | .00261 |
| 260. | 58.9394 | .06043 | 59.31 | .00252 | 260. | 59.3249 | .06132 | 60.35 | .00256 |
| 265. | 58.0699 | .05874 | 56.90 | .00247 | 265. | 58.4787 | .05965 | 57.95 | .00252 |
| 270. | 57.1877 | .05710 | 54.63 | .00242 | 270. | 57.6214 | .05803 | 55.67 | .00247 |
| 275. | 56.2925 | .05551 | 52.47 | .00237 | 275. | 56.7530 | .05646 | 53.52 | .00242 |
| 280. | 55.3844 | .05395 | 50.43 | .00233 | 280. | 55.8733 | .05492 | 51.48 | .00238 |
| 285. | 54.4632 | .05234 | 48.49 | .00228 | 285. | 54.9825 | .05334 | 49.54 | .00233 |
| 290. | 53.5291 | .05078 | 46.64 | .00223 | 290. | 54.0808 | .05180 | 47.71 | .00229 |
| 295. | 52.5825 | .04926 | 44.89 | .00219 | 295. | 53.1684 | .05031 | 45.96 | .00225 |
| 300. | 51.6238 | .04779 | 43.23 | .00215 | 300. | 52.2460 | .04886 | 44.31 | .00221 |
| 310. | 49.6731 | .04500 | 40.14 | .00207 | 310. | 50.3734 | .04610 | 41.24 | .00214 |
| 320. | 47.6848 | .04241 | 37.35 | .00201 | 320. | 48.4701 | .04353 | 38.47 | .00207 |
| 330. | 45.6706 | .04004 | 34.84 | .00196 | 330. | 46.5464 | .04118 | 35.97 | .00202 |
| 340. | 43.6469 | .03790 | 32.58 | .00193 | 340. | 44.6155 | .03904 | 33.72 | .00199 |
| 350. | 41.6344 | .03599 | 30.57 | .00192 | 350. | 42.6942 | .03713 | 31.71 | .00197 |
| 360. | 39.6575 | .03430 | 28.79 | .00192 | 360. | 40.8019 | .03542 | 29.92 | .00198 |
| 370. | 37.7416 | .03281 | 27.23 | .00195 | 370. | 38.9591 | .03391 | 28.35 | .00200 |
| 380. | 35.9100 | .03150 | 25.88 | .00200 | 380. | 37.1856 | .03258 | 26.97 | .00204 |
| 390. | 34.1809 | .03035 | 24.73 | .00207 | 390. | 35.4976 | .03140 | 25.78 | .00209 |
| 400. | 32.5654 | .02933 | 23.75 | .00215 | 400. | 33.9067 | .03036 | 24.75 | .00216 |
| 410. | 31.0681 | .02844 | 22.92 | .00225 | 410. | 32.4191 | .02944 | 23.87 | .00225 |
| 420. | 29.6877 | .02765 | 22.23 | .00236 | 420. | 31.0364 | .02863 | 23.13 | .00235 |
| 430. | 28.4193 | .02696 | 21.65 | .00248 | 430. | 29.7561 | .02791 | 22.50 | .00245 |
| 440. | 27.2553 | .02636 | 21.16 | .00260 | 440. | 28.5734 | .02728 | 21.97 | .00256 |
| 450. | 26.1872 | .02584 | 20.76 | .00273 | 450. | 27.4817 | .02673 | 21.52 | .00268 |
| 460. | 25.2061 | .02539 | 20.43 | .00286 | 460. | 26.4739 | .02625 | 21.15 | .00280 |
| 470. | 24.3034 | .02500 | 20.16 | .00300 | 470. | 25.5427 | .02583 | 20.84 | .00293 |
| 480. | 23.4710 | .02468 | 19.94 | .00314 | 480. | 24.6810 | .02547 | 20.58 | .00306 |
| 490. | 22.7016 | .02440 | 19.76 | .00328 | 490. | 23.8821 | .02515 | 20.37 | .00319 |
| 500. | 21.9886 | .02417 | 19.62 | .00342 | 500. | 23.1399 | .02489 | 20.20 | .00332 |
| 510. | 21.3260 | .02398 | 19.51 | .00357 | 510. | 22.4489 | .02467 | 20.06 | .00346 |
| 520. | 20.7088 | .02382 | 19.43 | .00371 | 520. | 21.8040 | .02448 | 19.95 | .00359 |
| 530. | 20.1322 | .02370 | 19.37 | .00386 | 530. | 21.2008 | .02432 | 19.86 | .00373 |
| 540. | 19.5924 | .02360 | 19.33 | .00401 | 540. | 20.6353 | .02420 | 19.80 | .00387 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 3800. psia Isobar | | | | | 4000. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 103.159 | 82.5513 | .12135 | 377.61 | .00373 | * 103.433 | 82.6013 | .12154 | 380.12 | .00373 |
| 105. | 82.2892 | .12036 | 367.77 | .00371 | 105. | 82.3788 | .12070 | 371.63 | .00372 |
| 110. | 81.5841 | .11782 | 341.97 | .00368 | 110. | 81.6760 | .11816 | 345.47 | .00368 |
| 115. | 80.8859 | .11546 | 317.71 | .00364 | 115. | 80.9807 | .11581 | 320.91 | .00365 |
| 120. | 80.1920 | .11324 | 295.10 | .00362 | 120. | 80.2902 | .11360 | 298.04 | .00363 |
| 125. | 79.5005 | .11113 | 274.17 | .00359 | 125. | 79.6024 | .11150 | 276.88 | .00360 |
| 130. | 78.8100 | .10910 | 254.88 | .00356 | 130. | 78.9159 | .10949 | 257.40 | .00358 |
| 135. | 78.1196 | .10714 | 237.18 | .00354 | 135. | 78.2299 | .10754 | 239.53 | .00355 |
| 140. | 77.4285 | .10522 | 220.97 | .00351 | 140. | 77.5435 | .10564 | 223.16 | .00353 |
| 145. | 76.7362 | .10334 | 206.14 | .00349 | 145. | 76.8561 | .10377 | 208.19 | .00350 |
| 150. | 76.0422 | .10149 | 192.58 | .00346 | 150. | 76.1673 | .10193 | 194.51 | .00348 |
| 155. | 75.3461 | .09966 | 180.19 | .00344 | 155. | 75.4767 | .10011 | 182.01 | .00345 |
| 160. | 74.6477 | .09783 | 168.86 | .00341 | 160. | 74.7841 | .09831 | 170.59 | .00343 |
| 165. | 73.9467 | .09602 | 158.50 | .00338 | 165. | 74.0891 | .09651 | 160.14 | .00340 |
| 170. | 73.2427 | .09420 | 149.00 | .00335 | 170. | 73.3915 | .09471 | 150.57 | .00337 |
| 175. | 72.5355 | .09239 | 140.30 | .00332 | 175. | 72.6910 | .09291 | 141.79 | .00334 |
| 180. | 71.8100 | .09058 | 132.31 | .00329 | 180. | 71.9874 | .09112 | 133.74 | .00331 |
| 185. | 71.1104 | .08877 | 124.96 | .00325 | 185. | 71.2804 | .08933 | 126.34 | .00327 |
| 190. | 70.3919 | .08696 | 118.20 | .00322 | 190. | 70.5697 | .08753 | 119.52 | .00324 |
| 195. | 69.6690 | .08515 | 111.96 | .00318 | 195. | 69.8550 | .08574 | 113.23 | .00320 |
| 200. | 68.9413 | .08334 | 106.19 | .00314 | 200. | 69.1360 | .08394 | 107.43 | .00317 |
| 205. | 68.2084 | .08153 | 100.85 | .00310 | 205. | 68.4125 | .08215 | 102.05 | .00313 |
| 210. | 67.4700 | .07972 | 95.91 | .00306 | 210. | 67.6839 | .08036 | 97.07 | .00309 |
| 215. | 66.7258 | .07792 | 91.31 | .00302 | 215. | 66.9501 | .07858 | 92.44 | .00305 |
| 220. | 65.9752 | .07612 | 87.03 | .00298 | 220. | 66.2105 | .07680 | 88.14 | .00301 |
| 225. | 65.2178 | .07433 | 83.04 | .00293 | 225. | 65.4650 | .07503 | 84.13 | .00296 |
| 230. | 64.4533 | .07255 | 79.32 | .00289 | 230. | 64.7130 | .07326 | 80.39 | .00292 |
| 235. | 63.6812 | .07078 | 75.84 | .00284 | 235. | 63.9543 | .07151 | 76.89 | .00288 |
| 240. | 62.9011 | .06902 | 72.58 | .00279 | 240. | 63.1885 | .06978 | 73.61 | .00283 |
| 245. | 62.1127 | .06728 | 69.51 | .00275 | 245. | 62.4153 | .06806 | 70.54 | .00278 |
| 250. | 61.3156 | .06556 | 66.64 | .00270 | 250. | 61.6343 | .06636 | 67.65 | .00274 |
| 255. | 60.5095 | .06386 | 63.93 | .00265 | 255. | 60.8454 | .06468 | 64.93 | .00269 |
| 260. | 59.6940 | .06218 | 61.38 | .00261 | 260. | 60.0483 | .06302 | 62.38 | .00265 |
| 265. | 58.8691 | .06054 | 58.97 | .00256 | 265. | 59.2429 | .06140 | 59.96 | .00260 |
| 270. | 58.0345 | .05893 | 56.69 | .00252 | 270. | 58.4291 | .05981 | 57.68 | .00256 |
| 275. | 57.1902 | .05738 | 54.54 | .00247 | 275. | 57.6068 | .05827 | 55.53 | .00252 |
| 280. | 56.3362 | .05586 | 52.50 | .00243 | 280. | 56.7760 | .05676 | 53.49 | .00248 |
| 285. | 55.4726 | .05430 | 50.57 | .00239 | 285. | 55.9371 | .05523 | 51.56 | .00244 |
| 290. | 54.5997 | .05278 | 48.73 | .00234 | 290. | 55.0901 | .05373 | 49.72 | .00239 |
| 295. | 53.7178 | .05131 | 46.99 | .00230 | 295. | 54.2354 | .05228 | 47.99 | .00236 |
| 300. | 52.8274 | .04988 | 45.34 | .00226 | 300. | 53.3736 | .05087 | 46.34 | .00232 |
| 310. | 51.0234 | .04715 | 42.28 | .00219 | 310. | 51.6305 | .04817 | 43.29 | .00225 |
| 320. | 49.1944 | .04462 | 39.52 | .00213 | 320. | 49.8669 | .04566 | 40.53 | .00219 |
| 330. | 47.3491 | .04228 | 37.04 | .00207 | 330. | 48.0905 | .04333 | 38.05 | .00214 |
| 340. | 45.4988 | .04015 | 34.79 | .00205 | 340. | 46.3112 | .04121 | 35.82 | .00211 |
| 350. | 43.6575 | .03822 | 32.79 | .00203 | 350. | 44.5404 | .03928 | 33.81 | .00209 |
| 360. | 41.8408 | .03650 | 30.99 | .00203 | 360. | 42.7913 | .03755 | 32.01 | .00208 |
| 370. | 40.0656 | .03497 | 29.40 | .00204 | 370. | 41.0780 | .03600 | 30.41 | .00209 |
| 380. | 38.3484 | .03362 | 28.00 | .00207 | 380. | 39.4143 | .03462 | 28.99 | .00211 |
| 390. | 36.7036 | .03242 | 26.78 | .00212 | 390. | 37.8128 | .03340 | 27.74 | .00215 |
| 400. | 35.1423 | .03135 | 25.71 | .00218 | 400. | 36.2838 | .03232 | 26.64 | .00220 |
| 410. | 33.6716 | .03041 | 24.80 | .00226 | 410. | 34.8345 | .03135 | 25.69 | .00227 |
| 420. | 32.2946 | .02958 | 24.01 | .00234 | 420. | 33.4688 | .03049 | 24.86 | .00234 |
| 430. | 31.0107 | .02883 | 23.33 | .00244 | 430. | 32.1879 | .02973 | 24.15 | .00243 |
| 440. | 29.8173 | .02818 | 22.76 | .00254 | 440. | 30.9902 | .02905 | 23.54 | .00252 |
| 450. | 28.7096 | .02760 | 22.27 | .00265 | 450. | 29.8728 | .02844 | 23.01 | .00262 |
| 460. | 27.6820 | .02709 | 21.86 | .00276 | 460. | 28.8313 | .02791 | 22.57 | .00272 |
| 470. | 26.7284 | .02664 | 21.51 | .00287 | 470. | 27.8608 | .02743 | 22.18 | .00283 |
| 480. | 25.8428 | .02624 | 21.22 | .00299 | 480. | 26.9562 | .02701 | 21.86 | .00294 |
| 490. | 25.0191 | .02590 | 20.98 | .00312 | 490. | 26.1121 | .02664 | 21.58 | .00306 |
| 500. | 24.2519 | .02561 | 20.77 | .00324 | 500. | 25.3238 | .02632 | 21.35 | .00317 |
| 510. | 23.5359 | .02535 | 20.61 | .00337 | 510. | 24.5863 | .02604 | 21.16 | .00329 |
| 520. | 22.8664 | .02514 | 20.47 | .00349 | 520. | 23.8954 | .02579 | 21.00 | .00341 |
| 530. | 22.2393 | .02495 | 20.36 | .00362 | 530. | 23.2470 | .02558 | 20.87 | .00353 |
| 540. | 21.6506 | .02480 | 20.28 | .00375 | 540. | 22.6374 | .02540 | 20.76 | .00365 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 4500. psia Isobar | | | | | 5000. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 104.115 | 82.7251 | .12202 | 386.30 | .00374 | * 104.793 | 82.8470 | .12249 | 392.34 | .00375 |
| 105. | 82.6003 | .12155 | 381.34 | .00373 | 105. | 82.8181 | .12239 | 391.14 | .00375 |
| 110. | 81.9029 | .11903 | 354.27 | .00370 | 110. | 82.1256 | .11988 | 363.14 | .00372 |
| 115. | 81.2144 | .11669 | 328.94 | .00367 | 115. | 81.4435 | .11756 | 337.02 | .00369 |
| 120. | 80.5318 | .11451 | 305.41 | .00365 | 120. | 80.7684 | .11540 | 312.81 | .00367 |
| 125. | 79.8530 | .11243 | 283.68 | .00363 | 125. | 80.0979 | .11335 | 290.50 | .00365 |
| 130. | 79.1763 | .11045 | 263.70 | .00360 | 130. | 79.4305 | .11139 | 270.02 | .00363 |
| 135. | 78.5007 | .10853 | 245.39 | .00358 | 135. | 78.7648 | .10950 | 251.25 | .00361 |
| 140. | 77.8255 | .10666 | 228.63 | .00356 | 140. | 78.1001 | .10766 | 234.10 | .00359 |
| 145. | 77.1499 | .10483 | 213.32 | .00354 | 145. | 77.4357 | .10587 | 218.44 | .00357 |
| 150. | 76.4736 | .10303 | 199.34 | .00351 | 150. | 76.7711 | .10410 | 204.14 | .00355 |
| 155. | 75.7961 | .10124 | 186.56 | .00349 | 155. | 76.1059 | .10235 | 191.09 | .00352 |
| 160. | 75.1172 | .09947 | 174.89 | .00346 | 160. | 75.4399 | .10061 | 179.17 | .00350 |
| 165. | 74.4366 | .09771 | 164.22 | .00344 | 165. | 74.7728 | .09888 | 168.27 | .00348 |
| 170. | 73.7541 | .09595 | 154.45 | .00341 | 170. | 74.1043 | .09716 | 158.30 | .00345 |
| 175. | 73.0695 | .09419 | 145.50 | .00338 | 175. | 73.4344 | .09544 | 149.16 | .00343 |
| 180. | 72.3825 | .09244 | 137.28 | .00335 | 180. | 72.7627 | .09372 | 140.79 | .00340 |
| 185. | 71.6929 | .09068 | 129.72 | .00332 | 185. | 72.0892 | .09200 | 133.09 | .00337 |
| 190. | 71.0006 | .08893 | 122.79 | .00329 | 190. | 71.4137 | .09028 | 126.01 | .00334 |
| 195. | 70.3052 | .08717 | 116.38 | .00326 | 195. | 70.7359 | .08857 | 119.48 | .00331 |
| 200. | 69.6066 | .08542 | 110.47 | .00322 | 200. | 70.0558 | .08685 | 113.46 | .00328 |
| 205. | 68.9045 | .08367 | 105.00 | .00319 | 205. | 69.3730 | .08514 | 107.89 | .00325 |
| 210. | 68.1986 | .08192 | 99.93 | .00315 | 210. | 68.6875 | .08343 | 102.74 | .00321 |
| 215. | 67.4887 | .08018 | 95.23 | .00311 | 215. | 67.9989 | .08173 | 97.95 | .00318 |
| 220. | 66.7745 | .07844 | 90.86 | .00308 | 220. | 67.3073 | .08003 | 93.51 | .00314 |
| 225. | 66.0558 | .07672 | 86.79 | .00304 | 225. | 66.6122 | .07834 | 89.38 | .00310 |
| 230. | 65.3323 | .07500 | 82.99 | .00300 | 230. | 65.9136 | .07666 | 85.52 | .00307 |
| 235. | 64.6037 | .07330 | 79.45 | .00295 | 235. | 65.2112 | .07500 | 81.93 | .00303 |
| 240. | 63.8698 | .07160 | 76.13 | .00291 | 240. | 64.5050 | .07335 | 78.56 | .00299 |
| 245. | 63.1304 | .06993 | 73.02 | .00287 | 245. | 63.7947 | .07171 | 75.41 | .00295 |
| 250. | 62.3854 | .06828 | 70.10 | .00283 | 250. | 63.0803 | .07010 | 72.46 | .00291 |
| 255. | 61.6345 | .06664 | 67.36 | .00279 | 255. | 62.3617 | .06850 | 69.68 | .00287 |
| 260. | 60.8775 | .06503 | 64.78 | .00275 | 260. | 61.6387 | .06693 | 67.08 | .00283 |
| 265. | 60.1148 | .06345 | 62.35 | .00270 | 265. | 60.9114 | .06539 | 64.62 | .00280 |
| 270. | 59.3458 | .06191 | 60.06 | .00266 | 270. | 60.1798 | .06388 | 62.31 | .00276 |
| 275. | 58.5709 | .06040 | 57.89 | .00263 | 275. | 59.4440 | .06241 | 60.12 | .00272 |
| 280. | 57.7901 | .05893 | 55.84 | .00259 | 280. | 58.7040 | .06096 | 58.06 | .00269 |
| 285. | 57.0035 | .05744 | 53.91 | .00255 | 285. | 57.9601 | .05951 | 56.11 | .00265 |
| 290. | 56.2115 | .05599 | 52.07 | .00251 | 290. | 57.2124 | .05810 | 54.27 | .00262 |
| 295. | 55.4142 | .05458 | 50.33 | .00247 | 295. | 56.4613 | .05672 | 52.52 | .00258 |
| 300. | 54.6122 | .05320 | 48.68 | .00244 | 300. | 55.7070 | .05538 | 50.86 | .00255 |
| 310. | 52.9958 | .05058 | 45.64 | .00238 | 310. | 54.1909 | .05281 | 47.80 | .00249 |
| 320. | 51.3670 | .04811 | 42.89 | .00232 | 320. | 52.6677 | .05039 | 45.04 | .00244 |
| 330. | 49.7318 | .04582 | 40.41 | .00227 | 330. | 51.1423 | .04813 | 42.56 | .00239 |
| 340. | 48.0973 | .04371 | 38.17 | .00224 | 340. | 49.6200 | .04604 | 40.31 | .00236 |
| 350. | 46.4715 | .04178 | 36.16 | .00221 | 350. | 48.1069 | .04411 | 38.28 | .00233 |
| 360. | 44.8634 | .04003 | 34.35 | .00220 | 360. | 46.6095 | .04234 | 36.46 | .00231 |
| 370. | 43.2822 | .03844 | 32.72 | .00220 | 370. | 45.1345 | .04073 | 34.81 | .00231 |
| 380. | 41.7375 | .03702 | 31.26 | .00221 | 380. | 43.6886 | .03928 | 33.32 | .00231 |
| 390. | 40.2381 | .03575 | 29.97 | .00224 | 390. | 42.2784 | .03796 | 31.99 | .00232 |
| 400. | 38.7919 | .03461 | 28.81 | .00227 | 400. | 40.9098 | .03678 | 30.80 | .00235 |
| 410. | 37.4053 | .03359 | 27.79 | .00232 | 410. | 39.5877 | .03571 | 29.73 | .00238 |
| 420. | 36.0827 | .03268 | 26.90 | .00238 | 420. | 38.3164 | .03475 | 28.77 | .00243 |
| 430. | 34.8269 | .03186 | 26.11 | .00244 | 430. | 37.0987 | .03388 | 27.93 | .00248 |
| 440. | 33.6386 | .03113 | 25.41 | .00252 | 440. | 35.9362 | .03310 | 27.17 | .00254 |
| 450. | 32.5173 | .03047 | 24.81 | .00259 | 450. | 34.8296 | .03240 | 26.51 | .00260 |
| 460. | 31.4613 | .02988 | 24.28 | .00268 | 460. | 33.7784 | .03176 | 25.92 | .00267 |
| 470. | 30.4678 | .02935 | 23.82 | .00277 | 470. | 32.7816 | .03118 | 25.40 | .00274 |
| 480. | 29.5336 | .02887 | 23.43 | .00286 | 480. | 31.8372 | .03065 | 24.94 | .00282 |
| 490. | 28.6553 | .02844 | 23.08 | .00296 | 490. | 30.9430 | .03018 | 24.54 | .00290 |
| 500. | 27.8293 | .02806 | 22.78 | .00306 | 500. | 30.0967 | .02974 | 24.18 | .00299 |
| 510. | 27.0518 | .02772 | 22.53 | .00316 | 510. | 29.2956 | .02935 | 23.87 | .00307 |
| 520. | 26.3195 | .02741 | 22.31 | .00326 | 520. | 28.5369 | .02899 | 23.60 | .00316 |
| 530. | 25.6290 | .02714 | 22.12 | .00336 | 530. | 27.8182 | .02867 | 23.37 | .00325 |
| 540. | 24.9771 | .02690 | 21.97 | .00346 | 540. | 27.1367 | .02838 | 23.17 | .00334 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 5000. psia Isobar | | | | | 7000. psia Isobar | | | | |
|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|-------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. BTU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 106.140 | 83.0854 | .12345 | 404.01 | .00377 | * 107.474 | 83.3167 | .12439 | 415.12 | .00379 |
| 110. | 82.5589 | .12155 | 381.06 | .00375 | 110. | 82.9774 | .12318 | 399.26 | .00378 |
| 115. | 81.8884 | .11926 | 353.30 | .00373 | 115. | 82.3168 | .12092 | 369.78 | .00376 |
| 120. | 81.2270 | .11714 | 327.71 | .00371 | 120. | 81.6676 | .11883 | 342.72 | .00375 |
| 125. | 80.5720 | .11514 | 304.20 | .00370 | 125. | 81.0265 | .11687 | 317.97 | .00374 |
| 130. | 79.9215 | .11323 | 282.67 | .00368 | 130. | 80.3913 | .11502 | 295.36 | .00372 |
| 135. | 79.2741 | .11140 | 262.99 | .00366 | 135. | 79.7604 | .11323 | 274.73 | .00371 |
| 140. | 78.6289 | .10962 | 245.03 | .00365 | 140. | 79.1326 | .11151 | 255.94 | .00370 |
| 145. | 77.9850 | .10788 | 228.65 | .00363 | 145. | 78.5072 | .10983 | 238.83 | .00368 |
| 150. | 77.3419 | .10618 | 213.72 | .00361 | 150. | 77.8834 | .10818 | 223.24 | .00367 |
| 155. | 76.6993 | .10449 | 200.09 | .00359 | 155. | 77.2610 | .10655 | 209.03 | .00365 |
| 160. | 76.0567 | .10282 | 187.66 | .00357 | 160. | 76.6394 | .10494 | 196.07 | .00364 |
| 165. | 75.4141 | .10116 | 176.30 | .00355 | 165. | 76.0185 | .10334 | 184.24 | .00362 |
| 170. | 74.7711 | .09950 | 165.92 | .00353 | 170. | 75.3980 | .10175 | 173.44 | .00360 |
| 175. | 74.1276 | .09785 | 156.41 | .00351 | 175. | 74.7778 | .10015 | 163.54 | .00358 |
| 180. | 73.4835 | .09620 | 147.69 | .00349 | 180. | 74.1578 | .09856 | 154.48 | .00356 |
| 185. | 72.8387 | .09454 | 139.69 | .00346 | 185. | 73.5379 | .09697 | 146.17 | .00354 |
| 190. | 72.1929 | .09289 | 132.33 | .00344 | 190. | 72.9179 | .09538 | 138.52 | .00352 |
| 195. | 71.5462 | .09124 | 125.56 | .00341 | 195. | 72.2979 | .09379 | 131.49 | .00350 |
| 200. | 70.8984 | .08960 | 119.31 | .00338 | 200. | 71.6777 | .09220 | 125.00 | .00347 |
| 205. | 70.2494 | .08795 | 113.53 | .00335 | 205. | 71.0572 | .09061 | 119.01 | .00345 |
| 210. | 69.5990 | .08631 | 108.19 | .00332 | 210. | 70.4364 | .08903 | 113.48 | .00342 |
| 215. | 68.9472 | .08467 | 103.24 | .00329 | 215. | 69.8153 | .08745 | 108.35 | .00340 |
| 220. | 68.2939 | .08304 | 98.64 | .00326 | 220. | 69.1937 | .08588 | 103.59 | .00337 |
| 225. | 67.6389 | .08142 | 94.37 | .00323 | 225. | 68.5716 | .08431 | 99.16 | .00334 |
| 230. | 66.9821 | .07981 | 90.39 | .00320 | 230. | 67.9490 | .08275 | 95.05 | .00331 |
| 235. | 66.3235 | .07821 | 86.68 | .00316 | 235. | 67.3258 | .08121 | 91.21 | .00328 |
| 240. | 65.6631 | .07663 | 83.21 | .00313 | 240. | 66.7020 | .07968 | 87.63 | .00325 |
| 245. | 65.0006 | .07506 | 79.97 | .00309 | 245. | 66.0775 | .07816 | 84.29 | .00322 |
| 250. | 64.3361 | .07351 | 76.93 | .00306 | 250. | 65.4523 | .07667 | 81.15 | .00319 |
| 255. | 63.6696 | .07198 | 74.08 | .00303 | 255. | 64.8265 | .07519 | 78.22 | .00316 |
| 260. | 63.0009 | .07047 | 71.41 | .00299 | 260. | 64.2001 | .07373 | 75.46 | .00313 |
| 265. | 62.3303 | .06899 | 68.89 | .00296 | 265. | 63.5730 | .07229 | 72.87 | .00310 |
| 270. | 61.6576 | .06753 | 66.52 | .00293 | 270. | 62.9453 | .07088 | 70.44 | .00307 |
| 275. | 60.9831 | .06611 | 64.29 | .00289 | 275. | 62.3171 | .06950 | 68.15 | .00304 |
| 280. | 60.3067 | .06471 | 62.18 | .00286 | 280. | 61.6886 | .06814 | 65.98 | .00301 |
| 285. | 59.6286 | .06333 | 60.19 | .00283 | 285. | 61.0597 | .06680 | 63.94 | .00298 |
| 290. | 58.9491 | .06197 | 58.31 | .00280 | 290. | 60.4306 | .06549 | 62.01 | .00296 |
| 295. | 58.2682 | .06064 | 56.53 | .00277 | 295. | 59.8015 | .06420 | 60.19 | .00293 |
| 300. | 57.5864 | .05935 | 54.85 | .00274 | 300. | 59.1725 | .06295 | 58.46 | .00290 |
| 310. | 56.2206 | .05687 | 51.73 | .00269 | 310. | 57.9159 | .06053 | 55.28 | .00285 |
| 320. | 54.8544 | .05452 | 48.93 | .00264 | 320. | 56.6625 | .05824 | 52.42 | .00281 |
| 330. | 53.4908 | .05232 | 46.41 | .00260 | 330. | 55.4144 | .05607 | 49.83 | .00277 |
| 340. | 52.1334 | .05026 | 44.12 | .00256 | 340. | 54.1741 | .05404 | 47.49 | .00273 |
| 350. | 50.7858 | .04834 | 42.06 | .00253 | 350. | 52.9440 | .05214 | 45.38 | .00271 |
| 360. | 49.4520 | .04656 | 40.19 | .00251 | 360. | 51.7268 | .05036 | 43.46 | .00268 |
| 370. | 48.1361 | .04493 | 38.49 | .00250 | 370. | 50.5251 | .04871 | 41.71 | .00267 |
| 380. | 46.8420 | .04343 | 36.96 | .00249 | 380. | 49.3416 | .04719 | 40.13 | .00266 |
| 390. | 45.5735 | .04205 | 35.57 | .00250 | 390. | 48.1788 | .04577 | 38.69 | .00265 |
| 400. | 44.3342 | .04080 | 34.31 | .00251 | 400. | 47.0390 | .04447 | 37.37 | .00266 |
| 410. | 43.1273 | .03965 | 33.17 | .00253 | 410. | 45.9245 | .04327 | 36.18 | .00267 |
| 420. | 41.9556 | .03861 | 32.14 | .00255 | 420. | 44.8370 | .04216 | 35.09 | .00268 |
| 430. | 40.8213 | .03766 | 31.21 | .00258 | 430. | 43.7783 | .04115 | 34.10 | .00270 |
| 440. | 39.7262 | .03679 | 30.37 | .00262 | 440. | 42.7496 | .04021 | 33.20 | .00273 |
| 450. | 38.6713 | .03600 | 29.62 | .00266 | 450. | 41.7519 | .03935 | 32.38 | .00275 |
| 460. | 37.6574 | .03528 | 28.93 | .00271 | 460. | 40.7861 | .03856 | 31.64 | .00279 |
| 470. | 36.6845 | .03462 | 28.32 | .00276 | 470. | 39.8523 | .03783 | 30.96 | .00283 |
| 480. | 35.7522 | .03401 | 27.77 | .00282 | 480. | 38.9508 | .03715 | 30.34 | .00287 |
| 490. | 34.8599 | .03346 | 27.28 | .00288 | 490. | 38.0814 | .03652 | 29.78 | .00291 |
| 500. | 34.0064 | .03294 | 26.84 | .00294 | 500. | 37.2437 | .03594 | 29.28 | .00296 |
| 510. | 33.1906 | .03247 | 26.44 | .00301 | 510. | 36.4372 | .03540 | 28.81 | .00301 |
| 520. | 32.4109 | .03203 | 26.09 | .00307 | 520. | 35.6610 | .03490 | 28.40 | .00306 |
| 530. | 21.6659 | .03163 | 25.77 | .00314 | 530. | 34.9143 | .03443 | 28.02 | .00311 |
| 540. | 30.9539 | .03126 | 25.49 | .00321 | 540. | 34.1962 | .03399 | 27.67 | .00317 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 8000. psia Isobar | | | | | 9000. psia Isobar | | | | |
|-------------------|----------|---------------|---------------|---------------------|-------------------|----------|---------------|---------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | BTU/ft.h.R | micro-lb/ft.s | ft**2/h | R | lb/ft**3 | BTU/ft.h.R | micro-lb/ft.s | ft**2/h |
| * 108.796 | 83.5415 | .12534 | 425.69 | .00380 | * 110.105 | 83.7601 | .12628 | 435.73 | .00382 |
| 110. | 83.3820 | .12477 | 417.72 | .00380 | 115. | 83.1295 | .12412 | 403.28 | .00382 |
| 115. | 82.7302 | .12254 | 386.43 | .00379 | 120. | 82.5007 | .12209 | 373.14 | .00382 |
| 120. | 82.0917 | .12048 | 357.87 | .00378 | 125. | 81.8833 | .12021 | 345.75 | .00381 |
| 125. | 81.4531 | .11856 | 331.82 | .00378 | 130. | 81.2743 | .11843 | 320.87 | .00381 |
| 130. | 80.8416 | .11675 | 308.09 | .00377 | 135. | 80.6718 | .11674 | 298.27 | .00380 |
| 135. | 80.2256 | .11501 | 286.49 | .00376 | 140. | 80.0743 | .11512 | 277.75 | .00379 |
| 140. | 79.6137 | .11334 | 266.85 | .00375 | 145. | 79.4808 | .11354 | 259.11 | .00379 |
| 145. | 79.0050 | .11171 | 248.98 | .00374 | | | | | |
| 150. | 78.3987 | .11012 | 232.72 | .00373 | 150. | 78.8905 | .11200 | 242.17 | .00378 |
| 155. | 77.7945 | .10855 | 217.91 | .00371 | 155. | 78.3027 | .11047 | 226.75 | .00377 |
| 160. | 77.1918 | .10699 | 204.42 | .00370 | 160. | 77.7171 | .10897 | 212.71 | .00376 |
| 165. | 76.5903 | .10545 | 192.11 | .00369 | 165. | 77.1333 | .10748 | 199.91 | .00375 |
| 170. | 75.9900 | .10391 | 180.87 | .00367 | 170. | 76.5512 | .10599 | 188.23 | .00373 |
| 175. | 75.3906 | .10237 | 170.59 | .00366 | 175. | 75.9704 | .10450 | 177.55 | .00372 |
| 180. | 74.7920 | .10083 | 161.17 | .00364 | 180. | 75.3910 | .10302 | 167.77 | .00371 |
| 185. | 74.1940 | .09930 | 152.53 | .00362 | 185. | 74.8127 | .10153 | 158.81 | .00369 |
| 190. | 73.5967 | .09776 | 144.60 | .00360 | 190. | 74.2355 | .10005 | 150.58 | .00368 |
| 195. | 73.0000 | .09622 | 137.30 | .00358 | 195. | 73.6594 | .09856 | 143.01 | .00366 |
| 200. | 72.4037 | .09469 | 130.57 | .00356 | 200. | 73.0843 | .09707 | 136.03 | .00364 |
| 205. | 71.8080 | .09315 | 124.36 | .00354 | 205. | 72.5102 | .09558 | 129.60 | .00362 |
| 210. | 71.2126 | .09162 | 118.62 | .00351 | 210. | 71.9371 | .09409 | 123.65 | .00360 |
| 215. | 70.6176 | .09009 | 113.31 | .00349 | 215. | 71.3648 | .09261 | 118.14 | .00358 |
| 220. | 70.0230 | .08856 | 108.38 | .00347 | 220. | 70.7935 | .09113 | 113.04 | .00356 |
| 225. | 69.4286 | .08705 | 103.80 | .00344 | 225. | 70.2231 | .08965 | 108.30 | .00353 |
| 230. | 68.8346 | .08554 | 99.54 | .00341 | 230. | 69.6535 | .08819 | 103.90 | .00351 |
| 235. | 68.2409 | .08404 | 95.57 | .00339 | 235. | 69.0849 | .08673 | 99.80 | .00349 |
| 240. | 67.6474 | .08255 | 91.87 | .00336 | 240. | 68.5170 | .08528 | 95.97 | .00346 |
| 245. | 67.0541 | .08108 | 88.42 | .00333 | 245. | 67.9501 | .08385 | 92.40 | .00344 |
| 250. | 66.4611 | .07963 | 85.18 | .00331 | 250. | 67.3841 | .08243 | 89.06 | .00341 |
| 255. | 65.8683 | .07819 | 82.15 | .00328 | 255. | 66.8189 | .08103 | 85.93 | .00339 |
| 260. | 65.2759 | .07677 | 79.31 | .00325 | 260. | 66.2547 | .07964 | 83.00 | .00336 |
| 265. | 64.6837 | .07537 | 76.64 | .00323 | 265. | 65.6914 | .07828 | 80.24 | .00334 |
| 270. | 64.0919 | .07400 | 74.13 | .00320 | 270. | 65.1290 | .07693 | 77.65 | .00331 |
| 275. | 63.5005 | .07265 | 71.77 | .00317 | 275. | 64.5677 | .07561 | 75.22 | .00329 |
| 280. | 62.9095 | .07133 | 69.55 | .00315 | 280. | 64.0075 | .07431 | 72.93 | .00327 |
| 285. | 62.3192 | .07002 | 67.45 | .00312 | 285. | 63.4485 | .07303 | 70.76 | .00324 |
| 290. | 61.7295 | .06874 | 65.46 | .00309 | 290. | 62.8906 | .07178 | 68.72 | .00322 |
| 295. | 61.1405 | .06748 | 63.59 | .00307 | 295. | 62.3341 | .07055 | 66.79 | .00320 |
| 300. | 60.5525 | .06626 | 61.82 | .00305 | 300. | 61.7789 | .06934 | 64.97 | .00317 |
| 310. | 59.3797 | .06389 | 58.55 | .00300 | 310. | 60.6732 | .06702 | 61.60 | .00313 |
| 320. | 58.2124 | .06164 | 55.61 | .00296 | 320. | 59.5745 | .06480 | 58.58 | .00309 |
| 330. | 57.0522 | .05951 | 52.95 | .00292 | 330. | 58.4838 | .06270 | 55.85 | .00306 |
| 340. | 55.9005 | .05750 | 50.55 | .00289 | 340. | 57.4024 | .06071 | 53.38 | .00302 |
| 350. | 54.7593 | .05561 | 48.38 | .00286 | 350. | 56.3315 | .05883 | 51.14 | .00300 |
| 360. | 53.6304 | .05384 | 46.40 | .00284 | 360. | 55.2725 | .05706 | 49.11 | .00297 |
| 370. | 52.5157 | .05218 | 44.61 | .00282 | 370. | 54.2266 | .05540 | 47.26 | .00295 |
| 380. | 51.4169 | .05064 | 42.97 | .00281 | 380. | 53.1954 | .05384 | 45.57 | .00294 |
| 390. | 50.3359 | .04920 | 41.48 | .00280 | 390. | 52.1799 | .05238 | 44.03 | .00293 |
| 400. | 49.2744 | .04786 | 40.12 | .00280 | 400. | 51.1815 | .05101 | 42.62 | .00292 |
| 410. | 48.2338 | .04661 | 38.88 | .00280 | 410. | 50.2013 | .04974 | 41.33 | .00292 |
| 420. | 47.2155 | .04546 | 37.74 | .00281 | 420. | 49.2403 | .04855 | 40.15 | .00293 |
| 430. | 46.2207 | .04439 | 36.70 | .00282 | 430. | 48.2994 | .04743 | 39.06 | .00293 |
| 440. | 45.2505 | .04340 | 35.75 | .00284 | 440. | 47.3794 | .04640 | 38.07 | .00294 |
| 450. | 44.3055 | .04248 | 34.88 | .00286 | 450. | 46.4807 | .04543 | 37.15 | .00296 |
| 460. | 43.3864 | .04163 | 34.08 | .00288 | 460. | 45.6041 | .04452 | 36.31 | .00297 |
| 470. | 42.4937 | .04084 | 33.35 | .00291 | 470. | 44.7497 | .04368 | 35.54 | .00299 |
| 480. | 41.6274 | .04010 | 32.68 | .00294 | 480. | 43.9178 | .04288 | 34.83 | .00301 |
| 490. | 40.7877 | .03941 | 32.07 | .00297 | 490. | 43.1085 | .04214 | 34.17 | .00304 |
| 500. | 39.9744 | .03877 | 31.51 | .00301 | 500. | 42.3218 | .04144 | 33.57 | .00307 |
| 510. | 39.1873 | .03817 | 31.00 | .00304 | 510. | 41.5576 | .04078 | 33.02 | .00309 |
| 520. | 38.4259 | .03760 | 30.53 | .00308 | 520. | 40.8155 | .04016 | 32.51 | .00313 |
| 530. | 37.6898 | .03707 | 30.10 | .00312 | 530. | 40.0954 | .03958 | 32.04 | .00316 |
| 540. | 36.9783 | .03658 | 29.71 | .00317 | 540. | 39.3967 | .03903 | 31.61 | .00319 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 10000. psia Isobar | | | | | 11000. psia Isobar | | | | |
|--------------------|----------|---------------|---------------|---------------------|--------------------|----------|---------------|---------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | 8TU/ft.h.R | micro-lb/ft.s | ft**2/h | R | lb/ft**3 | 8TU/ft.h.R | micro-lb/ft.s | ft**2/h |
| * 111.403 | 83.9729 | .12722 | 445.26 | .00384 | * 112.688 | 84.1803 | .12815 | 454.28 | .00385 |
| 115. | 83.5161 | .12566 | 420.32 | .00384 | 115. | 83.8907 | .12718 | 437.57 | .00386 |
| 120. | 82.8957 | .12366 | 388.54 | .00384 | 120. | 83.2779 | .12520 | 404.08 | .00387 |
| 125. | 82.2884 | .12181 | 359.76 | .00384 | 125. | 82.6796 | .12338 | 373.87 | .00387 |
| 130. | 81.6907 | .12008 | 333.70 | .00384 | 130. | 82.0923 | .12168 | 346.58 | .00387 |
| 135. | 81.1006 | .11843 | 310.08 | .00384 | 135. | 81.5134 | .12007 | 321.91 | .00388 |
| 140. | 80.5163 | .11685 | 288.66 | .00384 | 140. | 80.9412 | .11853 | 299.57 | .00388 |
| 145. | 79.9367 | .11531 | 269.23 | .00383 | 145. | 80.3743 | .11704 | 279.33 | .00387 |
| 150. | 79.3608 | .11382 | 251.58 | .00383 | 150. | 79.8118 | .11558 | 260.98 | .00387 |
| 155. | 78.7882 | .11234 | 235.55 | .00382 | 155. | 79.2530 | .11416 | 244.31 | .00387 |
| 160. | 78.2182 | .11089 | 220.95 | .00381 | 160. | 78.6973 | .11275 | 229.15 | .00386 |
| 165. | 77.6505 | .10944 | 207.66 | .00380 | 165. | 78.1444 | .11135 | 215.35 | .00386 |
| 170. | 77.0848 | .10800 | 195.53 | .00379 | 170. | 77.5938 | .10996 | 202.77 | .00385 |
| 175. | 76.5210 | .10657 | 184.44 | .00378 | 175. | 77.0455 | .10857 | 191.28 | .00384 |
| 180. | 75.9589 | .10513 | 174.30 | .00377 | 180. | 76.4992 | .10717 | 180.76 | .00383 |
| 185. | 75.3983 | .10369 | 165.01 | .00376 | 185. | 75.9547 | .10578 | 171.13 | .00382 |
| 190. | 74.8393 | .10225 | 156.47 | .00374 | 190. | 75.4121 | .10438 | 162.29 | .00381 |
| 195. | 74.2817 | .10081 | 148.63 | .00373 | 195. | 74.8712 | .10298 | 154.17 | .00380 |
| 200. | 73.7255 | .09936 | 141.40 | .00371 | 200. | 74.3321 | .10158 | 146.69 | .00378 |
| 205. | 73.1707 | .09792 | 134.73 | .00370 | 205. | 73.7946 | .10017 | 139.79 | .00377 |
| 210. | 72.6172 | .09647 | 128.58 | .00368 | 210. | 73.2587 | .09877 | 133.42 | .00375 |
| 215. | 72.0650 | .09503 | 122.88 | .00366 | 215. | 72.7245 | .09736 | 127.52 | .00374 |
| 220. | 71.5142 | .09359 | 117.60 | .00364 | 220. | 72.1919 | .09595 | 122.06 | .00372 |
| 225. | 70.9647 | .09215 | 112.70 | .00362 | 225. | 71.6609 | .09455 | 116.99 | .00370 |
| 230. | 70.4164 | .09072 | 108.14 | .00360 | 230. | 71.1316 | .09315 | 112.28 | .00368 |
| 235. | 69.8695 | .08930 | 103.90 | .00358 | 235. | 70.6038 | .09176 | 107.90 | .00366 |
| 240. | 69.3239 | .08789 | 99.94 | .00356 | 240. | 70.0777 | .09038 | 103.81 | .00364 |
| 245. | 68.7797 | .08649 | 96.25 | .00353 | 245. | 69.5532 | .08901 | 100.00 | .00362 |
| 250. | 68.2367 | .08510 | 92.80 | .00351 | 250. | 69.0304 | .08765 | 96.44 | .00360 |
| 255. | 67.6951 | .08372 | 89.57 | .00349 | 255. | 68.5092 | .08631 | 93.10 | .00358 |
| 260. | 67.1548 | .08237 | 86.54 | .00347 | 260. | 67.9898 | .08497 | 89.98 | .00356 |
| 265. | 66.6160 | .08103 | 83.70 | .00344 | 265. | 67.4720 | .08366 | 87.04 | .00354 |
| 270. | 66.0785 | .07971 | 81.03 | .00342 | 270. | 66.9559 | .08236 | 84.29 | .00352 |
| 275. | 65.5425 | .07842 | 78.52 | .00340 | 275. | 66.4416 | .08109 | 81.70 | .00350 |
| 280. | 65.0080 | .07714 | 76.15 | .00337 | 280. | 65.9291 | .07983 | 79.26 | .00348 |
| 285. | 64.4751 | .07588 | 73.93 | .00335 | 285. | 65.4184 | .07859 | 76.96 | .00345 |
| 290. | 63.9437 | .07465 | 71.82 | .00333 | 290. | 64.9095 | .07738 | 74.79 | .00343 |
| 295. | 63.4140 | .07344 | 69.83 | .00331 | 295. | 64.4026 | .07618 | 72.75 | .00341 |
| 300. | 62.8861 | .07225 | 67.95 | .00329 | 300. | 63.8977 | .07501 | 70.81 | .00339 |
| 310. | 61.8357 | .06996 | 64.49 | .00325 | 310. | 62.8939 | .07275 | 67.24 | .00336 |
| 320. | 60.7932 | .06777 | 61.37 | .00321 | 320. | 61.8988 | .07058 | 64.03 | .00332 |
| 330. | 59.7595 | .06569 | 58.57 | .00318 | 330. | 60.9129 | .06851 | 61.14 | .00329 |
| 340. | 58.7355 | .06371 | 56.03 | .00315 | 340. | 59.9368 | .06655 | 58.53 | .00326 |
| 350. | 57.7219 | .06184 | 53.72 | .00312 | 350. | 58.9713 | .06468 | 56.16 | .00323 |
| 360. | 56.7200 | .06007 | 51.63 | .00310 | 360. | 58.0170 | .06291 | 54.00 | .00321 |
| 370. | 55.7305 | .05840 | 49.72 | .00308 | 370. | 57.0748 | .06124 | 52.04 | .00319 |
| 380. | 54.7546 | .05683 | 47.98 | .00306 | 380. | 56.1452 | .05966 | 50.24 | .00317 |
| 390. | 53.7931 | .05536 | 46.39 | .00305 | 390. | 55.2292 | .05817 | 48.60 | .00316 |
| 400. | 52.8470 | .05397 | 44.94 | .00304 | 400. | 54.3273 | .05677 | 47.10 | .00315 |
| 410. | 51.9172 | .05267 | 43.60 | .00304 | 410. | 53.4402 | .05544 | 45.72 | .00314 |
| 420. | 51.0043 | .05145 | 42.37 | .00304 | 420. | 52.5684 | .05419 | 44.45 | .00314 |
| 430. | 50.1091 | .05030 | 41.25 | .00304 | 430. | 51.7126 | .05301 | 43.28 | .00314 |
| 440. | 49.2322 | .04922 | 40.21 | .00304 | 440. | 50.8731 | .05190 | 42.20 | .00314 |
| 450. | 48.3741 | .04821 | 39.25 | .00305 | 450. | 50.0503 | .05085 | 41.21 | .00314 |
| 460. | 47.5350 | .04726 | 38.37 | .00306 | 460. | 49.2446 | .04986 | 40.29 | .00315 |
| 470. | 46.7154 | .04636 | 37.56 | .00308 | 470. | 48.4561 | .04892 | 39.45 | .00316 |
| 480. | 45.9154 | .04552 | 36.81 | .00309 | 480. | 47.6851 | .04803 | 38.66 | .00317 |
| 490. | 45.1350 | .04473 | 36.12 | .00311 | 490. | 46.9315 | .04719 | 37.94 | .00318 |
| 500. | 44.3744 | .04398 | 35.48 | .00313 | 500. | 46.1955 | .04639 | 37.26 | .00320 |
| 510. | 43.6335 | .04327 | 34.89 | .00315 | 510. | 45.4770 | .04563 | 36.64 | .00321 |
| 520. | 42.9120 | .04260 | 34.35 | .00318 | 520. | 44.7758 | .04491 | 36.06 | .00323 |
| 530. | 42.2098 | .04196 | 33.84 | .00320 | 530. | 44.0919 | .04423 | 35.53 | .00325 |
| 540. | 41.5267 | .04136 | 33.37 | .00323 | 540. | 43.4251 | .04357 | 35.03 | .00327 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Enor. Units.

| 12000. psia Isobar | | | | | 13000. psia Isobar | | | | |
|--------------------|----------|---------------|---------------|---------------------|--------------------|----------|---------------|---------------|---------------------|
| Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity | Temp. | Density | Thermal Cond. | Viscosity | Thermal Diffusivity |
| R | lb/ft**3 | BTU/ft.h.R | micro-lb/ft.s | ft**2/h | R | lb/ft**3 | BTU/ft.h.R | micro-lb/ft.s | ft**2/h |
| * 113.963 | 84.3827 | .12909 | 462.83 | .00387 | * 115.227 | 84.5803 | .13002 | 470.91 | .00388 |
| 115. | 84.2544 | .12866 | 455.02 | .00387 | 120. | 84.0076 | .12817 | 435.59 | .00390 |
| 120. | 83.6482 | .12670 | 419.76 | .00389 | 125. | 83.4248 | .12641 | 402.37 | .00392 |
| 125. | 83.0581 | .12491 | 388.07 | .00390 | 130. | 82.8553 | .12477 | 372.53 | .00393 |
| 130. | 82.4801 | .12324 | 359.53 | .00390 | 135. | 82.2962 | .12323 | 345.67 | .00394 |
| 135. | 81.9115 | .12167 | 333.77 | .00391 | 140. | 81.7453 | .12176 | 321.43 | .00395 |
| 140. | 81.3504 | .12016 | 310.49 | .00391 | 145. | 81.2010 | .12035 | 299.53 | .00395 |
| 145. | 80.7953 | .11872 | 289.43 | .00392 | | | | | |
| 150. | 80.2451 | .11731 | 270.35 | .00392 | 150. | 80.6622 | .11898 | 279.72 | .00396 |
| 155. | 79.6991 | .11592 | 253.04 | .00392 | 155. | 80.1280 | .11764 | 261.75 | .00396 |
| 160. | 79.1566 | .11456 | 237.32 | .00391 | 160. | 79.5977 | .11632 | 245.45 | .00396 |
| 165. | 78.6172 | .11320 | 223.00 | .00391 | 165. | 79.0708 | .11500 | 230.61 | .00396 |
| 170. | 78.0806 | .11185 | 209.96 | .00390 | 170. | 78.5470 | .11369 | 217.10 | .00396 |
| 175. | 77.5464 | .11050 | 198.05 | .00390 | 175. | 78.0260 | .11239 | 204.78 | .00395 |
| 180. | 77.0146 | .10915 | 187.16 | .00389 | 180. | 77.5075 | .11108 | 193.51 | .00395 |
| 185. | 76.4849 | .10780 | 177.19 | .00388 | 185. | 76.9914 | .10977 | 183.20 | .00394 |
| 190. | 75.9573 | .10645 | 168.04 | .00387 | 190. | 76.4776 | .10845 | 173.74 | .00393 |
| 195. | 75.4317 | .10508 | 159.64 | .00386 | 195. | 75.9660 | .10712 | 165.05 | .00392 |
| 200. | 74.9080 | .10372 | 151.90 | .00385 | 200. | 75.4565 | .10580 | 157.05 | .00391 |
| 205. | 74.3862 | .10235 | 144.77 | .00384 | 205. | 74.9491 | .10446 | 149.68 | .00390 |
| 210. | 73.8663 | .10098 | 138.18 | .00382 | 210. | 74.4438 | .10313 | 142.87 | .00389 |
| 215. | 73.3483 | .09961 | 132.09 | .00381 | 215. | 73.9405 | .10179 | 136.58 | .00388 |
| 220. | 72.8321 | .09824 | 126.44 | .00379 | 220. | 73.4392 | .10045 | 130.75 | .00386 |
| 225. | 72.3177 | .09687 | 121.21 | .00378 | 225. | 72.9399 | .09911 | 125.35 | .00385 |
| 230. | 71.8052 | .09550 | 116.34 | .00376 | 230. | 72.4426 | .09777 | 120.32 | .00383 |
| 235. | 71.2946 | .09414 | 111.81 | .00374 | 235. | 71.9474 | .09643 | 115.65 | .00382 |
| 240. | 70.7858 | .09279 | 107.60 | .00372 | 240. | 71.4542 | .09511 | 111.30 | .00380 |
| 245. | 70.2789 | .09144 | 103.66 | .00371 | 245. | 70.9630 | .09379 | 107.24 | .00378 |
| 250. | 69.7739 | .09011 | 99.98 | .00369 | 250. | 70.4739 | .09247 | 103.44 | .00377 |
| 255. | 69.2707 | .08878 | 96.54 | .00367 | 255. | 69.9868 | .09117 | 99.89 | .00375 |
| 260. | 68.7695 | .08748 | 93.31 | .00365 | 260. | 69.5018 | .08989 | 96.57 | .00373 |
| 265. | 68.2702 | .08618 | 90.29 | .00363 | 265. | 69.0189 | .08861 | 93.45 | .00371 |
| 270. | 67.7728 | .08491 | 87.45 | .00361 | 270. | 68.5380 | .08735 | 90.52 | .00369 |
| 275. | 67.2774 | .08365 | 84.78 | .00359 | 275. | 68.0593 | .08611 | 87.77 | .00368 |
| 280. | 66.7839 | .08241 | 82.26 | .00357 | 280. | 67.5827 | .08489 | 85.18 | .00366 |
| 285. | 66.2926 | .08119 | 79.89 | .00355 | 285. | 67.1083 | .08368 | 82.74 | .00364 |
| 290. | 65.8032 | .07999 | 77.66 | .00353 | 290. | 66.6361 | .08249 | 80.43 | .00362 |
| 295. | 65.3160 | .07881 | 75.55 | .00351 | 295. | 66.1661 | .08133 | 78.26 | .00360 |
| 300. | 64.8308 | .07765 | 73.55 | .00349 | 300. | 65.6983 | .08018 | 76.20 | .00358 |
| 310. | 63.8572 | .07541 | 69.88 | .00346 | 310. | 64.7696 | .07795 | 72.42 | .00355 |
| 320. | 62.9126 | .07326 | 66.58 | .00342 | 320. | 63.8502 | .07582 | 69.02 | .00352 |
| 330. | 61.9675 | .07120 | 63.60 | .00339 | 330. | 62.9406 | .07377 | 65.96 | .00349 |
| 340. | 61.0324 | .06924 | 60.91 | .00336 | 340. | 62.0410 | .07182 | 63.19 | .00346 |
| 350. | 60.1078 | .06738 | 58.47 | .00334 | 350. | 61.1518 | .06996 | 60.67 | .00343 |
| 360. | 59.1942 | .06561 | 56.25 | .00331 | 360. | 60.2735 | .06819 | 58.39 | .00341 |
| 370. | 58.2922 | .06394 | 54.22 | .00329 | 370. | 59.4064 | .06651 | 56.31 | .00339 |
| 380. | 57.4023 | .06235 | 52.38 | .00328 | 380. | 58.5509 | .06491 | 54.41 | .00337 |
| 390. | 56.5252 | .06084 | 50.69 | .00326 | 390. | 57.7075 | .06340 | 52.66 | .00336 |
| 400. | 55.6612 | .05942 | 49.13 | .00325 | 400. | 56.8765 | .06196 | 51.07 | .00335 |
| 410. | 54.8109 | .05807 | 47.71 | .00324 | 410. | 56.0584 | .06059 | 49.60 | .00334 |
| 420. | 53.9747 | .05680 | 46.40 | .00324 | 420. | 55.2534 | .05929 | 48.24 | .00333 |
| 430. | 53.1531 | .05559 | 45.19 | .00323 | 430. | 54.4618 | .05806 | 47.00 | .00332 |
| 440. | 52.3463 | .05445 | 44.08 | .00323 | 440. | 53.6840 | .05688 | 45.85 | .00332 |
| 450. | 51.5548 | .05336 | 43.05 | .00323 | 450. | 52.9201 | .05577 | 44.78 | .00332 |
| 460. | 50.7786 | .05233 | 42.10 | .00324 | 460. | 52.1704 | .05470 | 43.80 | .00332 |
| 470. | 50.0181 | .05135 | 41.21 | .00324 | 470. | 51.4349 | .05369 | 42.88 | .00332 |
| 480. | 49.2732 | .05042 | 40.40 | .00325 | 480. | 50.7139 | .05272 | 42.04 | .00332 |
| 490. | 48.5442 | .04954 | 39.64 | .00326 | 490. | 50.0072 | .05179 | 41.25 | .00333 |
| 500. | 47.8310 | .04870 | 38.94 | .00327 | 500. | 49.3150 | .05091 | 40.52 | .00333 |
| 510. | 47.1336 | .04789 | 38.29 | .00328 | 510. | 48.6372 | .05006 | 39.84 | .00334 |
| 520. | 46.4519 | .04713 | 37.68 | .00329 | 520. | 47.9738 | .04925 | 39.21 | .00335 |
| 530. | 45.7857 | .04639 | 37.12 | .00330 | 530. | 47.3246 | .04847 | 38.62 | .00335 |
| 540. | 45.1351 | .04569 | 36.59 | .00332 | 540. | 46.6896 | .04772 | 38.07 | .00336 |

* Two Phase Boundary

Table 7. Transport Properties of Oxygen, Isobars, Engr. Units.

| 14000. psia Isobar | | | | | 15000. psia Isobar | | | | |
|--------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|--------------------|---------------------|--------------------------------|--------------------------------|-----------------------------------|
| Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h | Temp. R | Density lb/ft**3 | Thermal Cond. 8TU/ft.h.R | Viscosity micro- lb/ft.s | Thermal Diffusivity ft**2/h |
| * 116.480 | 84.7737 | .13095 | 478.55 | .00390 | * 117.723 | 84.9630 | .13188 | 485.78 | .00392 |
| 120. | 84.3568 | .12962 | 451.58 | .00392 | 120. | 84.6967 | .13104 | 467.73 | .00393 |
| 125. | 83.7806 | .12797 | 416.78 | .00394 | 125. | 84.1263 | .12931 | 431.30 | .00396 |
| 130. | 83.2188 | .12626 | 385.61 | .00396 | 130. | 83.5716 | .12773 | 398.76 | .00398 |
| 135. | 82.6694 | .12476 | 357.61 | .00397 | 135. | 83.0291 | .12625 | 369.60 | .00400 |
| 140. | 82.1269 | .12333 | 332.39 | .00398 | 140. | 82.4963 | .12485 | 343.38 | .00401 |
| 145. | 81.5927 | .12195 | 309.64 | .00399 | 145. | 81.9714 | .12351 | 319.75 | .00402 |
| 150. | 81.0644 | .12062 | 289.07 | .00400 | 150. | 81.4529 | .12222 | 298.42 | .00403 |
| 155. | 80.5412 | .11932 | 270.45 | .00400 | 155. | 80.9398 | .12095 | 279.12 | .00404 |
| 160. | 80.0222 | .11803 | 253.55 | .00400 | 160. | 80.4314 | .11971 | 261.63 | .00404 |
| 165. | 79.5070 | .11676 | 238.19 | .00400 | 165. | 79.9270 | .11847 | 245.74 | .00405 |
| 170. | 78.9951 | .11549 | 224.21 | .00400 | 170. | 79.4262 | .11724 | 231.28 | .00405 |
| 175. | 78.4862 | .11422 | 211.46 | .00400 | 175. | 78.9287 | .11601 | 218.10 | .00405 |
| 180. | 77.9801 | .11295 | 199.81 | .00400 | 180. | 78.4341 | .11477 | 206.07 | .00405 |
| 185. | 77.4766 | .11167 | 189.15 | .00399 | 185. | 77.9423 | .11353 | 195.06 | .00405 |
| 190. | 76.9755 | .11039 | 179.38 | .00399 | 190. | 77.4531 | .11229 | 184.97 | .00404 |
| 195. | 76.4768 | .10911 | 170.40 | .00398 | 195. | 76.9663 | .11104 | 175.70 | .00404 |
| 200. | 75.9804 | .10781 | 162.14 | .00397 | 200. | 76.4820 | .10977 | 167.18 | .00403 |
| 205. | 75.4863 | .10651 | 154.53 | .00396 | 205. | 76.0001 | .10851 | 159.33 | .00404 |
| 210. | 74.9943 | .10521 | 147.51 | .00395 | 210. | 75.5205 | .10723 | 152.08 | .00401 |
| 215. | 74.5045 | .10390 | 141.01 | .00394 | 215. | 75.0431 | .10595 | 145.39 | .00400 |
| 220. | 74.0168 | .10259 | 135.00 | .00393 | 220. | 74.5680 | .10467 | 139.18 | .00399 |
| 225. | 73.5313 | .10128 | 129.42 | .00392 | 225. | 74.0951 | .10339 | 133.43 | .00398 |
| 230. | 73.0479 | .09997 | 124.24 | .00390 | 230. | 73.6245 | .10210 | 128.10 | .00397 |
| 235. | 72.5667 | .09866 | 119.42 | .00389 | 235. | 73.1561 | .10082 | 123.13 | .00396 |
| 240. | 72.0876 | .09735 | 114.93 | .00387 | 240. | 72.6899 | .09953 | 118.50 | .00394 |
| 245. | 71.6107 | .09606 | 110.74 | .00386 | 245. | 72.2260 | .09826 | 114.19 | .00393 |
| 250. | 71.1359 | .09477 | 106.83 | .00384 | 250. | 71.7643 | .09699 | 110.16 | .00391 |
| 255. | 70.6633 | .09349 | 103.17 | .00382 | 255. | 71.3049 | .09573 | 106.39 | .00390 |
| 260. | 70.1929 | .09222 | 99.75 | .00381 | 260. | 70.8477 | .09447 | 102.86 | .00388 |
| 265. | 69.7247 | .09096 | 96.53 | .00379 | 265. | 70.3928 | .09323 | 99.55 | .00387 |
| 270. | 69.2586 | .08972 | 93.52 | .00377 | 270. | 69.9401 | .09201 | 96.45 | .00385 |
| 275. | 68.7948 | .08849 | 90.68 | .00376 | 275. | 69.4898 | .09079 | 93.53 | .00383 |
| 280. | 68.3333 | .08728 | 88.01 | .00374 | 280. | 69.0418 | .08959 | 90.78 | .00382 |
| 285. | 67.8740 | .08608 | 85.50 | .00372 | 285. | 68.5960 | .08841 | 88.19 | .00380 |
| 290. | 67.4169 | .08491 | 83.13 | .00370 | 290. | 68.1527 | .08725 | 85.75 | .00378 |
| 295. | 66.9622 | .08375 | 80.89 | .00369 | 295. | 67.7116 | .08610 | 83.45 | .00377 |
| 300. | 66.5098 | .08262 | 78.77 | .00367 | 300. | 67.2729 | .08497 | 81.27 | .00375 |
| 310. | 65.6119 | .08041 | 74.88 | .00364 | 310. | 66.4027 | .08277 | 77.27 | .00372 |
| 320. | 64.7237 | .07828 | 71.38 | .00361 | 320. | 65.5422 | .08066 | 73.67 | .00369 |
| 330. | 63.8452 | .07625 | 68.23 | .00358 | 330. | 64.6915 | .07863 | 70.43 | .00366 |
| 340. | 62.9768 | .07430 | 65.38 | .00355 | 340. | 63.8508 | .07669 | 67.50 | .00364 |
| 350. | 62.1188 | .07244 | 62.79 | .00353 | 350. | 63.0203 | .07483 | 64.84 | .00361 |
| 360. | 61.2714 | .07067 | 60.44 | .00350 | 360. | 62.2003 | .07305 | 62.42 | .00359 |
| 370. | 60.4349 | .06898 | 58.30 | .00348 | 370. | 61.3910 | .07136 | 60.22 | .00357 |
| 380. | 59.6096 | .06737 | 56.35 | .00346 | 380. | 60.5925 | .06974 | 58.21 | .00355 |
| 390. | 58.7959 | .06584 | 54.55 | .00345 | 390. | 59.8051 | .06820 | 56.36 | .00353 |
| 400. | 57.9939 | .06439 | 52.91 | .00343 | 400. | 59.0290 | .06673 | 54.67 | .00352 |
| 410. | 57.2041 | .06300 | 51.40 | .00342 | 410. | 58.2645 | .06532 | 53.12 | .00351 |
| 420. | 56.4267 | .06168 | 50.00 | .00341 | 420. | 57.5116 | .06398 | 51.68 | .00350 |
| 430. | 55.6618 | .06042 | 48.72 | .00341 | 430. | 56.7707 | .06270 | 50.36 | .00349 |
| 440. | 54.9098 | .05922 | 47.53 | .00340 | 440. | 56.0417 | .06147 | 49.14 | .00348 |
| 450. | 54.1707 | .05807 | 46.43 | .00340 | 450. | 55.3249 | .06030 | 48.00 | .00347 |
| 460. | 53.4447 | .05698 | 45.41 | .00339 | 460. | 54.6204 | .05917 | 46.95 | .00347 |
| 470. | 52.7319 | .05593 | 44.47 | .00339 | 470. | 53.9281 | .05809 | 45.98 | .00346 |
| 480. | 52.0324 | .05492 | 43.59 | .00339 | 480. | 53.2483 | .05705 | 45.07 | .00346 |
| 490. | 51.3462 | .05396 | 42.78 | .00339 | 490. | 52.5808 | .05604 | 44.23 | .00346 |
| 500. | 50.6733 | .05303 | 42.02 | .00340 | 500. | 51.9257 | .05508 | 43.45 | .00346 |
| 510. | 50.0137 | .05214 | 41.31 | .00340 | 510. | 51.2830 | .05415 | 42.71 | .00346 |
| 520. | 49.3674 | .05129 | 40.65 | .00340 | 520. | 50.6526 | .05325 | 42.03 | .00346 |
| 530. | 48.7342 | .05046 | 40.04 | .00341 | 530. | 50.0344 | .05239 | 41.40 | .00346 |
| 540. | 48.1140 | .04967 | 39.47 | .00341 | 540. | 49.4283 | .05155 | 40.80 | .00346 |

* Two Phase Boundary

Appendix A. Program Listings for Viscosity

The listings are extracted from reference [7].

Note 1. A call to the coefficient subroutine, i.e. CALL DATA 02, must precede the use of these routines.
 Note 2. Entry variables to FUNCTION VISC(DD,T) are density in mol/L and temperature in K.

```

FUNCTION VISC(DD,T)
C RETURNS VISCOSITY IN (G/CM-S)*E+6,
C T IN K, D IN MOL/L
COMMON/CPIT/EM
D=DD*FM/1000.
VISC=DILV(T)+FDCV(D,T)+EXCESV(D,T)
RETURN
END

FUNCTION DILV(T)
C GIVES DILUTE GAS VISCOSITY AND THERMAL
C CONDUCTIVITY FOR AN INPUT TEMP. IN
C KELVIN. OUTPUT UNITS ARE SAME AS
C THOSE IN VISC AND THERM
COMMON/ISP/N,NW,NWV
COMMON/DATA1/GV,GT,FV,FT,EV,ET
DIMENSION GV(9),GT(9),FV(4),FT(4),EV(8),ET(8)
SUM=D
TF=T**(1./3.)
TFF=T**(-4./3.)
DD 1D I=1,9
TFF=TFF*TF
10 SUM=SUM+GV(I)*TFE
IF (NWW.EQ.7) GO TO 9
DILV=SUM*1000.
GO TO 11
9 DILV=SUM
11 RETURN
ENTRY DILT
TF=T**(1./3.)
TFF=T**(-4./3.)
SUM=D
DD 2D I=1,9
TFF=TFF*TF
20 SUM=SUM+GT(I)*TFE
DILV=SUM
RETURN
END

FUNCTION FDCV(D,T)
C FIRST DENSITY CORRECTION
C FOR VISCOSITY AND THERMAL CONDUCTIVITY
COMMON/DATA1/GV,GT,FV,FT,EV,ET
DIMENSION GV(9),GT(9),FV(4),FT(4),EV(8),ET(8)
FDCV=(FV(1)+FV(2))*(FV(3)-ALOG(T/FV(4)))*2)*D
RETURN
ENTRY FDC2
FDCV=(FT(1)+FT(2))*(ET(3)-ALOG(T/FT(4)))*2)*D
RETURN
END

FUNCTION EXCESV(D,T)
C CALCULATES EXCESS VISCOSITY
COMMON/DATA1/GV,GT,FV,FT,EV,ET
COMMON/ISP/N,NW
DIMENSION GV(9),GT(9),FV(4),FT(4),EV(8),ET(8)
P2=D**(.5)*((D-FV(8))/EV(8))
R=D**(.1)
X=EV(1)+EV(2)*R2+EV(3)*R+EV(4)*R2/(T*T)+EV(5)*R/T**(.5)+EV(6)/T
1+FV(7)*R2/T
X1=FV(1)+EV(6)/T
EXCESV=EXP (X)-EXP (X1)
RETURN
ENTRY EXCEST
C CALCULATES EXCESS THERMAL CONDUCTIVITY
IF (NWW.EQ.0 ) GO TO 3
R=D**(.1)
X=ET(1)+ET(2)*R+ET(3)*R/T**(.5)+ET(4)/T
X1=ET(1)+ET(4)/T
EXCESV=(EXP (X)-EXP (X1))/10.
RETURN
3 P2=D**(.5)*((D-FT(8))/ET(8))
R=D**(.1)
X=ET(1)+ET(2)*R2+ET(3)*R+ET(4)*R2/(T*T)+ET(5)*R/T**(.5)+ET(6)/T
1+ET(7)*R2/T
X1=ET(1)+ET(6)/T
EXCESV=EXP (X)-EXP (X1)
RETURN
END
    
```

Appendix B. Program Listings for Thermal Conductivity

The listings are extracted from references [7] and [8].

Note 1. A call to the coefficient subroutine, i.e. CALL OATA O2, must precede the use of these routines.

Note 2. Entry variables to FUNCTION THERM(OO,T) are density in mol/L and temperature in K.

Note 3. The dilute gas thermal conductivity, ENTRY OILT in FUNCTION OILV(T), is listed in Appendix A.

```

C      FUNCTION THERM(OO,T)
      RETURNS TC IN MW/M-K, T IN K, D IN MOL/L
      COMMON/HAN/CR,TCI
      COMMON/ISP/N,NW
      COMMON/CRIT/EM
      → IF(EM.EQ.31.9988) GO TO 4
      O=OO*EM/1000.
      IF(NW.EQ.0 ) GO TO 3
      CR=0.0
      THER=OILT(T)+FOCT(O,T)*100.+EXCEST(O,T)+CR
      TCI=THER-CR
      THERM=THER
      RETURN
      3 CR=0.0
      THERM=OILT(T)+FOCT(O,T)+EXCEST(O,T)+CR
      TCI=THERM-CR
      RETURN
      → 4 CR=CRITCR(OO,T)*1000.
      → TCI=THERMR(OO,T)*1000.
      → THERM=TCI+CR
      → RETURN
      ENO

C      FUNCTION THERMR(RHO,TEMP)
      4TH SURFACE, COEF. FROM TCD21 AND MINIMS, 3 MAR 82
      DIMENSION 8(10)
      DATA B/.298644E-5
      1,.59842E+00,.11362E-01,-.19520E-04
      2,.47624E+00,-.64769E-03,.83223E-06
      3,-.278141E-4,.153705E-6,.147176E+1/
      T=TEMP
      OEN=RHO
      TCZERO=OILT(T)/1000.
      AL=8(1)*T
      BE=B(2)+B(3)*T+8(4)*T**2
      GA=8(5)+8(6)*T+B(7)*T**2
      OE=B(8)+8(9)*T+8(10)/T**2
      THERMR=TCZERO+AL*OEN+OE*(EXP(8*OEN**GA)-1.0)
      RETURN
      ENO

C      FUNCTION CRITCR(RHO,TEMP)
      4TH SURFACE, COEF. FROM TCD21 AND MINIMS, 3 MAR 82
      DIMENSION C(7)
      DATA C/.219200E+0,-145.55,.734512E-02,-.282950E-04
      1,-.71599E-3,.13804E+0,.12980E-5/
      DATA (TC=154.581),(RHOC=13.63)
      T=TEMP
      OEN=RHO
      OELO=ABS(OEN-RHOC)/RHOC
      IF(T.LT.TC) T=TC+(TC-T)
      IF(T.LT.307.443) GO TO 4
      CRITCR=0.
      RETURN
      4 CONTINUE
      AMPL=C(1)/(T+C(2))+C(3)+C(4)*T
      OELT=T-TC
      RHOCENT=RHOC+C(5)*OELT**1.5
      OELRHO=OEN-RHOCENT
      X1=C(6)*OELRHO
      IF(OELRHO.LT.0.) X1=X1+C(7)*OELRHO**5
      CRITCR=AMPL*EXP(-X1**2)
      IF(T.GT.162.9805) RETURN
      IF(OEN.LT.7.5.OR.OEN.GT.18.) RETURN
      TEST1=SENG81(OEN,T)
      IF(TEST1.GT.CRITCR) CRITCR=TEST1
      RETURN
      ENO
    
```

```

FUNCTION SENG81(RHO,TEMP)
C   SCALED EQUATION ONLY, VERSION OF 12 FEB 82
C   CRITICAL ENHANCEMENT AS IN SENEGERS ET AL 1981 U MARYL. REPORT
C   UNITS, IN MOL/L,K, INTERNAL ALSO ATM, OUT W/M-K, ETA G/CM-S,8K J/K
C   1.02 REPLACED BY 1.04, PARAMETER VARIATION FOR WEBER DATA
C   DATA (TC=154.581),(DC=13.63),(8K=1.38054E-23),(PC=49.77054)
1   ,(ZZ=5.9783E-10)
DATA (E=0.287),(G=1.190),(B=0.355),(DD=2.36),(XZ=0.183),(DE=4.352)
DEN=RHO
T=TEMP
DELD=ABS(DEN-DC)/DC
DELT=ABS(T-TC)/TC
DFACT=EXP(-(39.8*DELT**2+5.45*DELD**4))
RSTAR=DEN/DC
VIS=VISC(DEN,T)*(1.0E-06)
CALL DPDT(DPT,DEN,T)
C   IF(DELD.LE.0.25.AND.DELT.LT.0.03) GO TO 8
C   CALL DPDD(DPD,DEN,T)
C   CHISTAR=PC*DEN/(DC**2*DPD)
C   GO TO 12
8   IF(DELD.EQ.0.) GO TO 3
X=DELT/DELD**(1.0/B)
Y=(X+XZ)/XZ
TOP=DELD**(-G/B)*((1.+E)/(1.+E*Y**(2.*8)))*((G-1.)/(2.*8))
DIV=DD*(DE+(Y-1.)*(DE-1./B+F*Y**(2.*8))/(1.+E*Y**(2.*8)))
CHISTAR=TOP/DIV
12  CHI=CHISTAR**D.468D67
UPPER=1.04*8K/PC*(T*DPT/RSTAR)**2*CHI*DFACT*1.01325E+6
SENG81=UPPER/(ZZ*6.*3.14159*VIS)
RETURN
3   BGAM=XZ**G/DD*((1.+E)/E)*((G-1.)/(2.*8))
CHISTAR=BGAM*(DELT)**(-G)
GO TO 12
END

```


Appendix C. Conversion Factors, Oxygen

| | |
|---------------------------|--|
| Temperature | 1.8 R = 1 K |
| Pressure | 14.695949 psia = 1 atm = 1.01325×10^5 N/m ² (1 N/m ² = 1 Pa) |
| Specific Volume | 0.0005005957 ft ³ /lb _m = 1 cm ³ /g mol |
| Internal Energy, Enthalpy | 0.0134446 BTU/lb _m = 1 J/g mol |
| Entropy, Specific Heat | 0.0074692 BTU/lb _m R = 1 J/g mol-K |
| Thermal Conductivity | 0.0578176 BTU/ft-hr-R = 1 mW/cm-K |
| Viscosity | 0.067196897 lb _m /ft-s = 1 g/cm-s = 1 N s/m ² = 1 Pa s |
| Speed of Sound | 3.2808 ft/s = 1 m/s |
| Molecular Weight | 31.9988 |
| Surface Tension | 0.5710147×10^{-5} lb _f /in = 1 dyn/cm (1 dyn = 10^{-5} N) |

| | | | |
|---|---|--|--------------------------|
| 1. Report No. NASA RP-1102 | 2. Government Accession No. | 3. Recipient's Catalog No. | |
| 4. Title and Subtitle TRANSPORT PROPERTIES OF OXYGEN | | 5. Report Date April 1983 | |
| | | 6. Performing Organization Code | |
| 7. Author(s) H. M. Roder | | 8. Performing Organization Report No. NBSIR 82-1672 | |
| | | 10. Work Unit No. | |
| 9. Performing Organization Name and Address National Bureau of Standards Department of Commerce Washington, D. C. 20234 | | 11. Contract or Grant No. C-32369-C | |
| | | 13. Type of Report and Period Covered Reference Publication | |
| 12. Sponsoring Agency Name and Address National Aeronautics and Space Administration Lewis Research Center Cleveland, Ohio 44135 | | 14. Sponsoring Agency Code | |
| | | 15. Supplementary Notes | |
| 16. Abstract This report presents tables of viscosity, thermal conductivity, and thermal diffusivity of oxygen as a function of temperature and pressure from the triple point to 320 K and at pressures to 100 MPa. Auxiliary tables in engineering units are also given. Viscosity and thermal conductivity are calculated from previously published correlations. Density and specific heat at constant pressure, required to calculate thermal diffusivity, are obtained from an equation of state. The Prandtl number can be obtained quite easily from the values tabulated. | | | |
| 17. Key Words (Suggested by Author(s)) Density; Oxygen; Pressure; Tables; Temperature; Thermal conductivity; Thermal diffusivity; Viscosity | | 18. Distribution Statement STAR Category 34 Unclassified - unlimited | |
| 19. Security Classif. (of this report) Unclassified | 20. Security Classif. (of this page) Unclassified | 21. No. of Pages 87 | 22. Price* A05 |

National Aeronautics and
Space Administration

THIRD-CLASS BULK RATE

Postage and Fees Paid
National Aeronautics and
Space Administration
NASA-451



Washington, D.C.
20546

Official Business

Penalty for Private Use, \$300

NASA

POSTMASTER: If Undeliverable (Section 158
Postal Manual) Do Not Return
