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U. S. DEPARTMENT OF COMMERCE
NATIONAL BUREAU OF STANDARDS

Letter
Circular
LC 795

WASHINGTON

(Superseding
LC 659)

(July 7, 1945)

PAINT, VARNISH AND BITUMINOUS MATERIALS

List of National Bureau of Standards Publications
and Federal Specifications

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General Information

This letter circular lists papers on paint, varnish, and bituminous materials published by the National Bureau of Standards. It contains also a list of letter circulars and of publications in outside journals reporting work on these subjects by members of the Bureau staff. There is included also a list of Federal specifications covering these materials.

Unless specifically stated, the papers herein listed are not obtainable from the National Bureau of Standards. Those marked "OP" are out of print, but, in general, may be consulted at the libraries in large cities.

Where the price of a publication is given, it can be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C. The prices quoted are for delivery to addresses in the United States and its territories and possessions and in certain foreign countries that extend the franking privilege. When remitting for delivery to other countries, one-third of the total cost of publications should be added to cover postage.

Remittances should be made either by coupons (obtainable from the Superintendent of Documents in sets of 20 for \$1.00 and good until used), or by check or money order payable to the "Superintendent of Documents, Government Printing Office" and sent to him with order. (Please do not send stamps.)

Circulars of the Paint Manufacturers' Association of the United States, of the American Paint and Varnish Manufacturers' Association, and of the National Paint, Varnish and Lacquer Association, Inc., that are in print are obtainable from the Institute of Paint and Varnish Research, 1500 Rhode Island Avenue, N. W., Washington 5, D. C.

Engineering Societies, 29 W. 39th Street, New York City, maintain a duplicating service and are prepared to supply photostated copies of technical articles that are available in any of the large libraries in New York City.

The publications of the National Bureau of Standards and the Federal Specifications are designated by series letters followed by numbers. The explanation for these letters is as follows:

- RP = "Research Paper". These are reprints of articles appearing in the "Bureau of Standards Journal of Research" (BS J. Research) and the "Journal of Research of the National Bureau of Standards" (J. Research NBS), the latter being the title of this periodical since July 1934 (volume 13, number 1).
- T = "Technologic Paper" of the National Bureau of Standards. T1 to T202 were issued each independent of the other with individual pagination. Later they were assembled to make the first 15 volumes of this series, and subsequent separates were given volume pagination (Tech. Papers BS). This series has been superseded by the Journal of Research.
- C = "Circular" of the National Bureau of Standards.
- LC = "Letter Circular". These are mimeographed circulars issued without charge by the National Bureau of Standards and are designed to answer many requests for information.
- BMS = Building Materials and Structures Reports of the National Bureau of Standards.
- M = "Miscellaneous Publication" of the National Bureau of Standards.

R = "Simplified Practice Recommendations" of the National Bureau of Standards.

CS = "Commercial Standards" of the National Bureau of Standards.

TT-P-, JJJ-O-, etc. = Federal specifications. These specifications are promulgated by the Director of Procurement, Treasury Department. "Federal Standard Stock Catalog, Section IV, Part I, Federal Specifications, Index", which lists all Federal specifications with prices, can be purchased for 25 cents from the Superintendent of Documents.

For papers in other scientific or technical journals, the name of the journal is given in abbreviated form, with address, in most cases, in parentheses, and with the volume number, page, and year of publication, in the order named. The journals may be obtained from the publisher or consulted in libraries.

Those who wish to keep informed concerning work at the National Bureau of Standards should subscribe to the "Technical News Bulletin". It is a monthly publication which lists all papers published by members of the staff, whether appearing in Bureau publications or in other journals. It contains abstracts of papers appearing in the Journal of Research of the National Bureau of Standards, notes on progress of work in the laboratories, important conferences at the Bureau, and other items of general technical interest. Subscriptions should be sent to the Superintendent of Documents, Government Printing Office, Washington 25, D. C. The price is 50 cents per annum.

I. TECHNOLOGIC PAPERS

<u>Title</u>	<u>Series</u>	<u>Price</u>
The density and thermal expansion of linseed oil and turpentine. H. W. Bearce. (April 15, 1912)...	T9	OP
Iodine number of linseed oil and petroleum oils. W. H. Smith and J. B. Tuttle. (April 28, 1914)...	T37	OP
Determination of oil and resin in varnish. E. W. Boughton. (February 19, 1916).....	T65	OP
Detection of resin in drier. E. W. Boughton. (January 15, 1916).....	T66	OP
Effect of certain pigments on linseed oil. E. W. Boughton. (April 13, 1916).....	T71	OP

<u>Title</u>	<u>Series</u>	<u>Price</u>
Determination of volatile thinner in oil varnish. E. W. Boughton. (June 21, 1916).....	T76	OP
Slushing oils. Percy H. Walker and Lawrence L. Steele. (October 14, 1920).....	T176	OP
Shellac. Percy H. Walker and Lawrence L. Steele. Tech. Pap. BS <u>17</u> , 277-296 (1923).....	T232	OP
Exposure tests on colorless waterproofing materials. D. W. Kessler. Tech. Pap. BS <u>18</u> , 1-33 (1924-25)..	T248	OP
Emissive tests of paints for decreasing or increasing heat radiation from surfaces. W. W. Coblentz and C. W. Hughes. Tech. Pap. BS <u>18</u> , 171-187 (1924-25).	T254	OP
Use of United States Government specification paints and paint materials. P. H. Walker and E. F. Hickson. Tech. Pap. BS 19, 27-46 (1925) ...	T274	OP
This is being replaced by a publication (in prepara- tion) entitled BMS 105, "Paint Manual With Particular Reference to Federal Specifications". When this is available, announcement will be made in the Bureau's "Technical News Bulletin".		
A photometric method for measuring the hiding power of paints. H. D. Bruce. Tech. Pap. BS <u>20</u> , 173-190 (1925).....	T306	OP

II. CIRCULARS OF GENERAL INFORMATION

<u>Title</u>	<u>Series</u>	<u>Price</u>
Paint and varnish. (November 17, 1917).....	C69	OP

Miscellaneous Publications

<u>Title</u>	<u>Series</u>	<u>Price</u>
Some technical methods of testing miscellaneous supplies, including paints and paint materials, inks, lubricating oils, soaps, etc. (November 15, 1916).....	ML5	OP
Paint for priming plaster surfaces. Percy H. Walker and E. F. Hickson. (August 31, 1932).....	ML37	OP

III. RESEARCH PAPERS

<u>Title</u>	<u>Series</u>	<u>Price</u>
Accelerated tests of organic protective coatings. Percy H. Walker and E. F. Hickson. BS J. Research <u>1</u> , 1-17 (1928).....	RP1	OP
Tinting strength of pigments. H. D. Bruce. BS J. Research <u>1</u> , 125-150 (1928).....	RP7	OP
The ring and ball method of test for softening point of bituminous materials, resins, and similar substances. Percy H. Walker. BS J. Research <u>4</u> , 195-201 (1930).....	RP142	OP
Durability tests of spar varnish. C. L. Came. BS J. Research <u>4</u> , 247-259 (1930).....	RP146	OP
Accelerated tests of asphalts. O. G. Strieter. BS J. Research <u>5</u> , 247-253 (1930).....	RP197	OP
A new test for predicting the durability of varnishes (The photochemical embrittling test). J. H. Wilson. BS J. Research <u>7</u> , 73-83 (1931)....	RP333	OP
Determination of insoluble matter in shellac. C. C. Hartman. BS J. Research <u>7</u> , 1105-13 (1931)..	RP391	OP
A modified accelerated weathering test for asphalts and other materials. O. G. Strieter and H. R. Snoke. BS J. Research <u>16</u> , 481-485 (1936)..	RP886	OP
A study of the weathering quality of roofing felts made from various fibers. O. G. Strieter. J. Research NBS <u>16</u> , 511-523 (1936).....	RP888	OP
Accelerated weathering tests of mineral-surfaced asphalt shingles. Hubert R. Snoke and Braxton E. Gallup. J. Research NBS <u>18</u> , 669-681 (1937)...	RP1002	10¢
Some properties and tests of traffic or zone paints. Eugene F. Hickson. J. Research NBS <u>19</u> , 21-30 (1937).....	RP1007	10¢
Weathering tests on filled coating asphalts. O. G. Strieter. J. Research NBS <u>20</u> , 159-171 (1939).....	RP1073	10¢
Method of designating colors. Dean B. Judd and Kenneth L. Kelly, J. Research NBS <u>23</u> , 355-385 (1939).....	RP1239	10¢

<u>Title</u>	<u>Series</u>	<u>Price</u>
Hue, saturation and lightness of surface colors with chromatic illumination. Deane B. Judd. J. Research NBS <u>24</u> , 293-333 (1940).....	RP1285	OP
Effect of paint on the sound absorption of acoustic materials. V. L. Chrisler. J. Research NBS <u>24</u> , 547-553 (1940).....	RP1298	10¢
Apparatus for the study of the photochemistry of sheet materials. Herbert F. Launer. J. Research NBS <u>24</u> , 567-577 (1940).....	RP1300	10¢
Determination of nonvolatile matter and the calculation of "cut" of shellac varnish. Charles C. Hartman. J. Research NBS <u>25</u> , (1940).	RP1333	5¢
A multipurpose photoelectric reflectometer, Richard S. Hunter. J. Research NBS <u>25</u> , 581-618 (1940).....	RP1345	10¢
Method for determining the components of asphalts and crude oils. O. G. Strieter. J. Research NBS <u>26</u> , (1941).....	RP1387	5¢
Measurement of the fading rate of paint. Arnold J. Eickhoff and Richard S. Hunter. J. Research NBS <u>28</u> , 773-793 (1942).....	RP1478	10¢
Tristimulus specification of the Munsell book of color from spectrophotometric measurements. Kenneth L. Kelly, Kasson S. Gibson, and Dorothy Nickerson. J. Research NBS <u>31</u> , 55-76 (1943).....	RP1549	20¢

IV. BUILDING MATERIALS AND STRUCTURES REPORTS

<u>Title</u>	<u>Series</u>	<u>Price</u>
Survey of roofing materials in the southeastern states. Hubert R. Snoke and Leo J. Waldron. November 4, 1938.....	BMS6	15¢
Methods of investigation of surface treatment for corrosion protection of steel. Rolla E. Pollard and Wilbur C. Porter. October 11, 1938.....	BMS8	10¢
Survey of roofing materials in the Northeastern States. Hubert R. Snoke and Leo J. Waldron. October 11, 1939.....	BMS29	10¢
Surface treatment of steel prior to painting. Rolla E. Pollard and Wilbur C. Porter. (1940)..	BMS44	10¢
Roofing in the United States - results of a questionnaire. Leo J. Waldron and Hubert R. Snoke. September 18, 1940.....	BMS57	10¢
Solar heating of various surfaces. Herman V. Cottony and Richard S. Dill. January 23, 1941..	BMS64	10¢
Asphalt-prepared roll roofings and shingles. Hubert R. Snoke (1941).....	BMS70	15¢
Survey of roofing materials in the North Central States. Hubert R. Snoke and Leo J. Waldron. (1941).....	BMS75	15¢
Survey of roofing materials in the South Central States. Hubert R. Snoke and Leo J. Waldron. May 5, 1942.....	BMS84	15¢
Tests of cement-water paints and other water-proofings for unit-masonry walls. Cyrus C. Fishburn and Douglas E. Parsons. March 15, 1943.....	BMS95	15¢
Painting steel. Wilbur C. Porter. October 16, 1944.....	BMS102	10¢

V. LETTER CIRCULARS

<u>Title</u>	<u>Series</u>
Acid-proof coatings for concrete surfaces	LC42
Protection of track scale parts from corrosion.....	LC54
Specification for paint for use on R.R. track scale ...	LC81
Painting plaster	LC304
Color and legibility	LC351
The painting of structural metal	LC422
Painting of steam and hot water radiators	LC445
Wood and shingle stains	LC464
The reflectance of paints and pigments.....	LC470
Inside wall paint for chemical laboratories (heat- and fume-resisting enamel paint)	LC489
Dampness in masonry walls above grade	LC514
Color harmony	LC525
Preparation and colorimetric properties of a magnesium oxide reflectance standard	LC547
Fluorescence and phosphorescence	LC550
Outside house painting	LC603
Fluorescent lamps	LC652
Color charts	LC665
Sources of information on paint and related materials..	LC671
Luminous and fluorescent paint	LC703
Paints and other protective coatings for tires	LC709
Painting steel potable water tanks	LC744
Paints for swimming pools	LC746
Painting exterior walls of porous masonry	LC747

<u>Title</u>	<u>Series</u>
Refinishing wood furniture	LC748
Paint and varnish removers	LC749
Control of humidity by saturated salt solutions	LC752
Polishes	LC753
Finishes for concrete floors	LC758
Care of floors	LC764
Spray painting	LC773
Paint, varnish and bituminous materials - List of National Bureau of Standards publications and Federal specifications	LC795

VI. SIMPLIFIED PRACTICE RECOMMENDATIONS

<u>Title</u>	<u>Series</u>	<u>Price</u>
Paint and varnish brushes	R43-28	5¢
Color for school furniture	R111-30	5¢
Paints, varnishes and related products	R144-43	5¢
Color code for marking steel bars	R166-37	5¢
Color marking for anesthetic gas cylinders	R176-41	5¢

VII. COMMERCIAL STANDARDS

<u>Title</u>	<u>Series</u>	<u>Price</u>
Colors for sanitary ware	CS30-31	OP
Colors for kitchen accessories	CS62-38	5¢
Colors for bathroom accessories	CS63-38	5¢
Artist's oil paints	CS98-42	5¢

VIII. OUTSIDE PUBLICATIONS

- Some tests of paints for steel subjected to alternate exposure to air and fresh water. Percy H. Walker and S. S. Voorhees, J. Ind. Eng. Chem. (1155 16th Street, Washington 6, D. C.), 5, 899 (November 1913).
- Notes on the color designation of oil varnish, F. A. Wertz, J. Ind. Eng. Chem. 10, 475 (June 1918).
- A new hexabromide method for linseed oil, L. L. Steele and F. M. Washburn, J. Ind. Eng. Chem. 12, 52 (January 1920).
- The determination of acid number of tung and other vegetable oils, L. L. Steele and G. G. Sward, J. Ind. Eng. Chem. 14, 57 (January 1922).
- Some physical properties of paint, Percy H. Walker and J. G. Thompson, Proc. Am. Soc. Test. Materials (260 South Broad Street, Philadelphia 2, Pa.) 22, Part 2, 464 (1922).
- Abietic acid and certain metal abietates, L. L. Steele, J. Am. Chem. Soc. (1155 16th Street, Washington 6, D. C.) 44, 1333 (June 1922).
- Notes on two fossil coal resins, L. L. Steele, Am. J. Sci. (New Haven, Connecticut) 7; 389 (May 1924).
- Importance of position in weather tests, Percy H. Walker., Ind. Eng. Chem. 16, 58 (May 1924).
- Some observations on red lead as a paint pigment, E. F. Hickson and H. R. Snoke, Paint Mfrs. Assoc. of the U. S. (1500 Rhode Island Avenue, N. W., Washington 5, D. C.), Circ. 207, (July 1924).
- The effect of mineral fillers on the serviceability of coating asphalts, O. G. Strieter, Proc. Am. Soc. Test. Materials 36, Part 2, 486 (1936).
- Some properties and tests of traffic or zone paints. E. F. Hickson, National Paint, Varnish and Lacquer Assoc., Inc., (1500 Rhode Island Ave., N.W., Washington 5, D. C.) Circular No. 532 (1937).

Effect of certain metallic soaps on the drying of raw linseed oil. L. L. Steele, Ind. Eng. Chem. 16, 957 (Sept., 1924).

Paints resistant to sulphide fumes, Percy H. Walker and E. F. Hickson, Ind. Eng. Chem. 16, 1142 (November 1924).

Some observations on aluminum paint, Percy H. Walker and E. F. Hickson, Chem. and Met. Eng. (330 West 42nd St., New York 18, N. Y.) 31, No. 18 (November 3, 1924).

The swinging beam method of testing varnish films, Percy H. Walker and L. L. Steele, Paint Mfrs. Assn. of the U. S., Circ. 229 (March 1925).

Paint and varnish research at the Bureau of Standards, Percy H. Walker, J. Chem. Education (Metcalf Chemical Laboratory, Brown University, Providence, R. I.), 3, 777 (July 1926).

A study of the peroxide and persulphate methods for determining chromium in chrome paint pigments, E. F. Hickson, Am. Paint and Varnish Mfrs. Assn. Circ. 294 (November 1926).

Penetration tests on paste paints, E. F. Hickson, Am. Paint and Varnish Mfrs. Assn., Circ. 300 (January 1927).

A study of commercial flat wall paints (lithopone type), E. F. Hickson, Am. Paint and Varnish Mfrs. Assn., Circ. 305, (March 1927).

The measurement of the gloss of paints by the Ingersoll Glarimeter, E. F. Hickson, Am. Paint and Varnish Mfrs. Assn., Circ. 307 (April 1927).

Some precautions to be observed in using saturated solutions for controlling the humidity of air spaces, Percy H. Walker, L. L. Steele and E. F. Hickson, Am. Paint and Varnish Mfrs. Assn., Circ. 310, 292 (May 1927).

Effect of certain organic bases in plasticized nitrocellulose films, L. L. Steele, Ind. Eng. Chem. 19, 807 (July 1927).

Some methods of testing paint and varnish materials, Percy H. Walker, International Congress for Testing Materials, Part II, 603 (1927).

Accelerated tests of organic protective coatings, Percy H. Walker and E. F. Hickson, Ind. Eng. Chem. 20, 591 (June 1927).

Unreliability of visual inspection of exposure tests of paints, Percy H. Walker and E. F. Hickson, Ind. Eng. Chem. 20, 997 (October 1928).

Present status of the technic of evaluating paint service, Percy H. Walker, Proc. Wood Painting Conference, Madison, Wis. (September 13 and 14, 1929). (Issued in mimeographed form by Forest Products Laboratory, Madison 5, Wisconsin).

Some random suggestions on the purchase of paint, Percy H. Walker. Commercial Standards Monthly 7, No. 1 (July 1930).

Preparation of surfaces other than wood and composition board for paint and similar coatings, Percy H. Walker. (Read April 11, 1930, to Paint and Varnish Superintendents' Club of the Philadelphia District. Published by Adelpia Reporting Board, Philadelphia, Pa.)

Advantages of oxide films as bases for aluminum pigmented surface coatings for aluminum alloys, R. W. Buzzard and W. H. Mutchler. Nat. Advisory Com. for Aeronautics, Washington 25, D. C. Technical Note 400 (November 1931).

Preparation, use and abuse of specifications for paint materials, P. H. Walker. Symposium on paint and paint materials, Am. Soc. Test. Mtls. (March 6, 1935).

Laboratory testing of inside flat wall finishes from the consumer's viewpoint, E. F. Hickson. Symposium on correlation between accelerated laboratory tests and service tests on protective and decorative coatings, Am. Soc. Test. Mtls. (June 29, 1937).

Outdoor exposure test of paints for exterior masonry walls, Clara Sentel, National Paint, Varnish and Lacquer Assoc., Inc., Circular 609 (1941).

Determining the flash points of heavy-bodied paints by the Tag closed cup and the Pensky-Martens tester, David Busker, A.S.T.M. Bulletin (260 South Broad Street, Philadelphia 2, Pa.), No. 124, October 1943.

The influence of metallic driers on certain properties of linseed-replacement oils, Chas. C. Hartman and Eugene F. Hickson, National Paint, Varnish and Lacquer Association, Circular 673, (April 1944).

A method of preparing paint films for determining their dry contrast ratio, Paul T. Howard, National Paint, Varnish and Lacquer Assoc., Inc., Circular 695 (September 1944).

IX. FEDERAL SPECIFICATIONS FOR PAINT,
VARNISH AND BITUMINOUS MATERIALS

The following list of Federal specifications is arranged alphabetically by titles, with the appropriate Federal specification symbol also given. In some cases the titles are not exactly the same as are given in the specification, but are chosen for the convenience of the reader. Some materials are cross referenced as a further aid to the reader. For example, "Damar Varnish -- TT-V-61" is the same material as is found under "Varnish, damar -- TT-V-61". A lower case letter at the end of the symbol indicates a revision of the specification. For example, "TT-V-121b" indicates that since the first specification was prepared as TT-V-121 there have been two revisions. The symbol given in the following list is the latest at the time this letter circular was prepared. Assume that later on specification TT-V-121b for example is revised and comes out as "TT-V-121c", this will be the copy received from the Superintendent of Documents, even though the "TT-V-121b" symbol is used in ordering.

Federal Specifications may be purchased from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., for 5 cents each (no stamps), except TT-P-141a, Methods of Sampling and Testing, 20 cents.

Federal Specifications Index, Part 1 of Federal Standard Stock Catalog, Section IV, may be obtained from the Superintendent of Documents, Washington 25, D. C. Price 25 cents.

1. Paints, Pigments, Varnishes, Lacquers,
Thinners, Stains, Oils, Etc.

<u>Title</u>	<u>Symbol</u>
Acetone	O-A-51a
Aluminum pigment	TT-A-468
Aluminum, varnish for	TT-V-81a
Asphalt varnish	TT-V-51a
Benzol	VV-B-231
Black enamel	TT-E-521
Black enamel, heat resisting	TT-E-496
Black paint, carbon	TT-P-61a
Black paint, graphite	TT-P-27
Blue lead, dry and in oil	TT-B-486
Blue lead, paint	TT-P-20
Bone black, dry	TT-B-600
Bone black, paste-in-oil	TT-P-381
Calcimine	TT-C-96
Calking compound	TT-C-598

<u>Title</u>	<u>Symbol</u>
Carbon black, dry	TT-C-120
Carbon black, paste-in-oil	TT-P-381
Casein paint, exterior	TT-P-22
Casein paint, interior	TT-P-23a
Cement-water paint	TT-P-21
Chrome green, dry	TT-C-235
Chrome green, paste-in-oil	TT-P-381
Chrome orange, dry	TT-C-290
Chrome orange, paste-in-oil	TT-P-381
Chrome oxide, dry	TT-C-306
Chrome oxide, paste-in-oil	TT-P-381
Chrome yellow, dry	TT-C-290
Chrome yellow, paste-in-oil	TT-P-381
Cold water paint, exterior	TT-P-22
Cold water paint, interior	TT-P-23a
Concrete and masonry paint	TT-P-24
Copper phthalocyanine blue	TT-C-610
Damar varnish	TT-V-61
Drier, liquid paint	TT-D-651a
Drum coating enamel	TT-E-485a
Eggshell interior paint	TT-P-51a
Emulsion paint	TT-P-88a
Enamel, see under color or type	
Exterior paint	TT-P-40
Exterior primer for wood	TT-P-25
Exterior varnish	TT-V-121b
Filler, paste wood	TT-F-336a
Flat interior paint	TT-P-51a
Floor paint, rubber base	TT-P-91
Floor paint, varnish base	TT-P-146
Galvanized iron primer	TT-P-641
Gold leaf	QQ-G-566
Graphite paint	TT-P-27
Green paint	TT-P-71a
Heat-resisting enamel	TT-E-496
House paint, white and tints	TT-P-40
House paint, see under color or type	
Indian red, dry	TT-I-511
Indian red, paste-in-oil	TT-P-381
Interior enamel	TT-E-506a
Interior cold water paint	TT-P-23a
Interior emulsion paint	TT-P-88a
Interior flat paint	TT-P-51a
Interior one-coat flat paint	TT-P-47
Interior varnish	TT-V-71a
International orange paint	TT-P-59
Iron blue, dry (formerly "Prussian blue")	TT-I-677
Iron blue, paste-in-oil	TT-P-381
Iron oxide, black, dry	TT-I-698
Iron oxide, bright red, dry	TT-I-511

<u>Title</u>	<u>Symbol</u>
Iron oxide, bright red, paste-in-oil	TT-P-381
Iron oxide, brown, dry	TT-I-702
Iron oxide paint	TT-P-31a
Lacquer, spraying	TT-L-58
Lacquer, thinner	TT-T-266
Lampblack, dry	TT-L-70
Lampblack, paste-in-oil	TT-P-381
Lead-zinc-titanium paint	TT-P-40
Lithopone, dry	TT-L-426
Lusterless olive drab enamel	TT-E-514
Magnesium silicate	TT-M-90
Masonry paint	TT-P-24
Metallic brown, dry	TT-M-251
Metallic brown, paste-in-oil	TT-P-381
Methods of test	TT-P-141a
Mineral spirits	TT-T-291a
Mineral red iron oxide, dry	TT-M-381
Mineral red iron oxide, paste-in-oil	TT-P-381
Mixing varnish for aluminum	TT-V-81a
Olive drab enamel, lusterless	TT-E-514
Olive drab exterior paint	TT-P-81a
Ochre, dry	TT-O-121
Ochre, paste-in-oil	TT-P-381
Oil, flatting	TT-O-356a
Oil, linseed, boiled	JJJ-O-331
Oil, linseed, raw	JJJ-O-336
Oil, linseed, replacement	TT-O-371
Oil, soybean	JJJ-O-348
Oil, tung	JJJ-O-353
Orange paint, international	TT-P-59
Paint, see under color or type	
Pigments, pastes-in-oil	TT-P-381
Pine tar	JJJ-T-121
Plaster primer	TT-P-56
Primer, exterior wood	TT-P-25
Primer, galvanized iron	TT-P-641
Primer, plaster	TT-P-56
Protein base exterior paint	TT-P-22
Protein base interior paint	TT-P-23a
Prussian blue, dry	TT-I-677
Prussian blue, paste-in-oil	TT-P-381
Putty, wood sash glazing	TT-P-791a
Putty, metal sash glazing	TT-P-781
Radioactive luminous compound	TT-R-58
Red enamel	TT-E-531a
Red lead, dry and paste	TT-R-191a
Red lead paint	TT-P-86
Remover, paint and varnish	TT-R-251a
Rubbing varnish	TT-V-86

<u>Title</u>	<u>Symbol</u>
Sealer, floor, lacquer type	TT-S-171
Sealer, floor, varnish type	TT-S-176a
Shellac, orange	TT-S-271
Shellac varnish	TT-V-91a
Sienna, raw and burnt, dry	TT-S-346
Sienna, raw and burnt, paste-in-oil	TT-P-381
Spirit varnish	TT-V-130
Stain, wood, exterior	TT-S-706
Stain, wood, interior	TT-S-711
Stencil paint	TT-P-98
Tar, pine	JJJ-T-121
Testing methods	TT-P-141a
Thinner, lacquer	TT-T-266
Thinner, paint	TT-T-291a
Titanium dioxide	TT-T-425
Titanium-lead-zinc paint	TT-P-40
Toluidine red	TT-T-562
Traffic paint	TT-P-115
Turpentine, gum spirits	LLL-T-791b
Turpentine, steam distilled wood	LLL-T-791b
Turpentine, destructively distilled wood	LLL-T-792a
Ultramarine blue, dry	TT-U-450
Ultramarine blue, paste-in-oil	TT-P-381
Umber, raw and burnt, dry	TT-U-481
Umber, raw and burnt, paste-in-oil	TT-P-381
Varnish, aluminum	TT-V-81a
Varnish, asphalt	TT-V-51a
Varnish, damar	TT-V-61
Varnish, exterior	TT-V-121b
Varnish, interior	TT-V-71a
Varnish, rubbing	TT-V-86
Varnish, shellac	TT-V-91a
Varnish, spar	TT-V-121b
Varnish, spirit	TT-V-130
Venetian red, dry	TT-V-226
Venetian red, paste-in-oil	TT-P-381
White lead, basic carbonate	TT-W-251b
White lead, basic sulfate	TT-W-261a
White lead paint	TT-P-40
Yellow exterior paint	TT-P-53
Yellow iron oxide, dry	TT-Y-216
Yellow iron oxide, paste-in-oil	TT-P-381
Zinc dust-zinc oxide primer	TT-P-641
Zinc oxide	TT-Z-301
Zinc oxide, leaded	TT-Z-321
Zinc yellow	TT-Z-415

2. Bituminous Materials Including Asphalt and Coal Tar Products

<u>Title</u>	<u>Symbol</u>
Asphalt; (for) built-up roofing, waterproofing and dampproofing	SS-A-666
Asphalt; cut-back (for) road work	SS-A-671a
Asphalt; emulsion (for) road work	SS-A-674a
Asphalt; petroleum, Type PAF-1-25 (for) joint filler (squeegee or pouring method).....	SS-A-696
Asphalt primer (for) roofing and waterproofing	SS-A-701
Asphalt (for use in) road and pavement construction.	SS-A-706b
Cement; bituminous plastic	SS-C-153
Cotton-fabric; woven, asphalt-saturated flashings .	HH-C-581a
Felt; coal-tar-saturated (for) roofing and waterproofing	HH-F-201
Felt; asphalt-saturated (for) flashings, roofing and waterproofing	HH-F-191a
Paper; sheathing, waterproof	UU-P-536
Roof coating; asphalt, brushing consistency	SS-R-451
Roofing; asphalt-prepared, smooth-surfaced	SS-R-501
Roofing; asphalt, (and asbestos), prepared, mineral-surfaced	SS-R-511
Roofing and shingles; asphalt-prepared, mineral-surfaced	SS-R-521
Tar; (for) joint filler	R-T-111
Tars; (for use in) road construction	R-T-143
Wood-preservative; coal-tar-creosote (for) ties and structural timbers	TT-W-556a
Wood-preservative; creosote (for) brush and spray treatment	TT-W-561a
Wood-preservative; creosote-coal tar solution (for) ties and structural timbers	TT-W-566a
Wood-preservative; creosote-petroleum solution	TT-W-568

