#### DEPARTMENT OF COMMERCE

#### **BUREAU OF STANDARDS**

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# UNITED STATES GOVERNMENT MASTER SPECIFICATION FOR PACKING, HARD FIBER SHEET

#### FEDERAL SPECIFICATIONS BOARD SPECIFICATION No. 486

This specification was officially promulgated by the Federal Specifications Board on May 12, 1927, for the use of the departments and independent establishments of the Government in the purchase of hard fiber sheet packing.

[The latest date on which the technical requirements of this specification shall become mandatory for all departments and independent establishments of the Government is August 12, 1927. They may be put into effect, however, at any earlier date after promulgation]

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#### I. GENERAL SPECIFICATIONS

There are no general specifications applicable to this specification.

#### II. GRADE

Only one grade of hard-fiber sheet packing shall be furnished.

#### III. MATERIAL AND WORKMANSHIP

Packing shall be made by treating all cotton cellulose paper with zinc chloride. No sizing or foreign materials other than dyes or pigments for coloring shall be used. The finished packing shall be free from cracks, seams, blisters, flaws, tears, creases, and grains; shall be clean, hard, and straight, with smooth surfaces; shall be thoroughly seasoned; and shall be uniform in color, texture, and thickness.

# IV. GENERAL REQUIREMENTS

See detail requirements.

# V. DETAIL REQUIREMENTS

The detail requirements sh	all be as follows:
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Color	Red unless otherwise specified.
Specific gravity	1.15 to 1.50.
Chloride of zinc (maximum)per cent	
Mineral matter limited to oxide of iron and/or clay (maximum)per cent	5.0.
Tensile strength, sheets less than $\frac{1}{16}$ -inch thick	
pounds per square inch	5,000.
Tensile strength, sheets $\frac{1}{16}$ to $\frac{1}{4}$ -inch thick	
pounds per square inch	8,000.
Tensile strength, sheets over 1/4-inch thick	
pounds per square inch	7,000.
Tolerance in thickness (plus or minus)per cent	10.

## VI. METHOD OF INSPECTION AND TEST

- 1. A sample 12 inches square shall be selected from each lot of 2,000 pounds or less of the same thickness and forwarded to the Government laboratory for tests.
- 2. Specimens for tension tests shall be in the form of a strip one-half inch wide, of the full thickness of the sheet, and 3 inches between the grips. One specimen shall be taken longitudinally and one specimen transversely of the sheet. The speed of the testing machine shall be 12 inches per minute, jaw separation.

## VII. PACKING AND MARKING OF SHIPMENTS

Packing and marking shall be in accordance with best commercial practice, unless otherwise specified.

#### VIII. NOTE

Hard-fiber sheet packing is used for gaskets in water, lubricating oil, and air connections of internal-combustion engines at pressures up to 200 pounds per square inch and at temperatures not exceeding 150° F. It is also used for carbon dioxide-gas connections at pressures not exceeding 1,500 pounds per square inch.

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