

HH-P-41D
May 16, 1986
SUPERSEDING
HH-P-41C
March 6, 1964

FEDERAL SPECIFICATION

PACKING, ASBESTOS, ROPE AND WICK

This specification is approved by the Commissioner, Federal Supply Service, General Services Administration, for the use of all Federal agencies.

1. SCOPE AND CLASSIFICATION

1.1 Scope. This specification covers asbestos rope and wick packing for use in sealing against steam, high temperature air or gases, hot water, and similar conditions for temperatures up to 500° F.

1.2 Classification.

1.2.1 Grade and sizes. Asbestos rope and wick packing covered by this specification shall be of one grade and shall be furnished in the sizes specified (see 3.3 and 6.2).

2. APPLICABLE DOCUMENTS

2.1 The following documents, of the issues in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein:

FEDERAL SPECIFICATIONS

QQ-S-781	- Strapping, Steel, and Seals
PPP-B-585	- Boxes, Wood, Wirebound.
PPP-B-591	- Boxes, Shipping, Fiberboard, Wood-Cleated.
PPP-B-601	- Boxes, Wood, Cleated-Plywood.
PPP-B-621	- Boxes, Wood, Nailed and Lock-Corner.
PPP-B-636	- Boxes, Shipping, Fiberboard.
PPP-B-640	- Boxes, Fiberboard, Corrugated, Triple Wall.

FEDERAL STANDARDS

FED. STD. NO. 102 - Preservation, Packaging, and Packing Levels.
FED. STD. NO. 123 - Marking for Shipment (Civil Agencies).

AMSC N/A

FSC 5330

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

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COMMERCIAL ITEM DESCRIPTIONS

A-A-1683 - Tape, Pressure-Sensitive Adhesive (Packaging, Paper).

(Activities outside the Federal Government may obtain copies of Federal specifications, standards, and commercial item descriptions as outlined under General Information in the Index of Federal Specifications, Standards and Commercial Item Descriptions. The Index, which includes cumulative bimonthly supplements as issued, is for sale on a subscription basis by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

(Single copies of this specification, and other Federal specifications and commercial item descriptions required by activities outside the Federal Government for bidding purposes are available without charge from General Services Administration Business Service Centers in Boston, MA; New York, NY; Philadelphia, PA; Washington, DC; Atlanta, GA; Chicago, IL; Kansas City, MO; Fort Worth, TX; Houston, TX; Denver, CO; San Francisco, CA; Los Angeles, CA; and Seattle, WA.

(Federal Government activities may obtain copies of Federal standardization documents and the Index of Federal Specifications, Standards and Commercial Item Descriptions from established distribution points in their agencies.)

MILITARY SPECIFICATIONS

MIL-P-116 - Preservation, Methods of

MILITARY STANDARDS

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes.

MIL-STD-129 - Marking for Shipment and Storage.

MIL-STD-147 - Palletized Unit Loads

MIL-STD-414 - Sampling Procedures and Tables for Inspection by Variables for Percent Defective.

MIL-STD-794 - Parts and Equipment, Procedures for Packaging of

(Copies of military specifications and standards required by contractors in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

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2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless a specific issue is identified, the issue in effect on date of invitation for bids or request for proposal, shall apply.

ASTM

ANSI/ASTM D1918-72 - Asbestos Content of Asbestos Textiles
Standard Test Method for

ASTM D3951 - Packaging, Commercial

(Application for copies should be addressed to ASTM, 1916 Race Street, Philadelphia, PA 19103.)

3. REQUIREMENTS

3.1 Material. Packing shall be made from strands or rovings containing not less than 75 percent by weight of dry chrysotile asbestos (see 4.3.1).

3.2 Construction. The packing shall be made from long fiber carded asbestos spun into strands and laid up into the general form of a wick or a loosely twisted rope. If a core is employed, it shall be of the same material and construction.

3.3 Size and weight. The size and weight shall be as shown in TABLE I.

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TABLE I. SIZE AND WEIGHT

NOMINAL SIZE DIAMETER - INCHES		WEIGHT LBS PER 100 FEET NOMINAL (TOLERANCE \pm 8%)	FEET PER LB NOMINAL (TOLERANCE \pm 8%)	UNIT WEIGHTS
FRACTION	DECIMAL			
<u>WICK</u>	<u>WICK</u>			
$1/4 \pm 1/16$	$.25 \pm .0625$	1.9	52.00	25 Pound
$3/8 \pm 1/16$	$.375 \pm .0625$	3.6	28.00	Spool or Reel
<u>ROPE</u>	<u>ROPE</u>			
$1/4 \pm 1/16$	$.25 \pm .0625$	1.9	52.00	25 or 50 Pound Coil
$3/8 \pm 1/16$	$.375 \pm .0625$	4.8	21.00	
$1/2 \pm 1/16$	$.5 \pm .0625$	8.5	11.75	
$5/8 \pm 1/16$	$.625 \pm .0625$	12.5	8.00	
$3/4 \pm 1/16$	$.75 \pm .0625$	16.5	6.10	
$7/8 \pm 1/16$	$.875 \pm .0625$	25.0	4.00	
$1 \pm 1/16$	$1.00 \pm .0625$	28.6	3.50	
$1 \ 1/4 \pm 1/16$	$1.25 \pm .0625$	40.0	2.50	
$1 \ 1/2 \pm 1/8$	$1.50 \pm .125$	56.0	1.80	

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein, unless disapproved by the Government. The Government reserves the right to perform any of the inspections set forth in the specification where such inspections are deemed necessary to assure that supplies and services conform to prescribed requirements.

4.2 Quality conformance inspections.

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4.2.1 Lot. For purposes of sampling, a lot shall consist of all packing of the same size produced under essentially the same conditions and offered for delivery at one time.

4.2.2 Sampling for visual, dimensional, and weight examination. A random sample of spools, reels or coils shall be selected from each lot offered for inspection with lot acceptance based on inspection requirements in accordance with MIL-STD-105, Inspection Level II. The Acceptable Quality Level (AQL) shall be 2.5 percent defective. Any spool, reel or coil containing one or more visual, dimensional, or weight defects shall not be offered for delivery, and if the number of defective spools, reels, or coils exceed the acceptance number for that sample, this shall be cause for rejection of the lot represented by the sample.

4.2.3 Sampling for tests. A random sample of spools, reels, or coils shall be selected from each lot in accordance with Table II for the test specified in 4.3. The values of percent asbestos determined for each specimen in the test procedure of 4.3.1 shall be employed as specified in MIL-STD-414, Example B-2, to compute the quality index and the lot percent defective, which shall not exceed 4.0 percent. If any specimen tested is found not to be in conformance with this specification, this shall be cause for rejection of the lot represented by the sample.

TABLE II. SAMPLING FOR TESTS

NUMBER OF SPOOLS OR COILS IN LOT	NUMBER OF SPOOLS OR COILS IN SAMPLE ^{1/}
110 and under	3
111 to 300	5
301 to 500	7
501 and over	10

^{1/} From each sample spool, reel or coil a specimen weighing not less than 6 ounces shall be taken.

4.3 Test methods.

4.3.1 Asbestos content. The asbestos content shall be determined in accordance with ANSI/ASTM D1918-72.

4.4 Inspection of preparation for delivery requirements. An inspection shall be made to determine that packaging, packing and marking requirements of Section 5 of this specification are complied with. Defects shall be scored in accordance with Table III. For examination of contents the sample unit shall be one shipping container fully prepared for delivery selected just prior to the closing operations. Defects of closure listed shall be examined on shipping containers fully prepared for delivery. The lot size shall be the number of shipping containers in the end item inspection lot. The Inspection Level shall be II and the AQL shall be 6.5 defects per hundred units.

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TABLE III. CLASSIFICATION OF PREPARATION FOR DELIVERY DEFECTS

CATEGORY	DEFECTS
Markings (exterior and interior)	Omitted; incorrect; illegible; or improper size, location, sequence, or method of application.
Materials	Any component missing, or damaged.
Workmanship	Inadequate application of components such as incomplete closure of container flaps, loose strapping, or inadequate stapling. Bulging or distortion of container.

5. PREPARATION FOR DELIVERY

5.1 Preservation, packaging and packing. Preservation, packaging and packing shall be in accordance with FED. STD. No. 102.

5.1.1 Preservation and packaging. Preservation and packaging shall be level A, C, or Commercial as specified (see 6.2).

5.1.2 Level A. Packing of like description furnished on spools, reels or coils shall be packaged individually in a close fitting box in accordance with PPP-B-636, Class 2, Style RSC. The box shall be closed in accordance with the box specification.

5.1.2.1 Cleaning. Spools, reels or coils shall be cleaned in accordance with MIL-P-116, Process C-1.

5.1.2.2 Drying. Spools, reels or coils shall be dried in accordance with MIL-P-116.

5.1.2.3 Unit packs. Unless otherwise specified (see 6.2), each packing of like description furnished on spools, reels or coils shall be individually unit packed in accordance with MIL-P-116, Method III.

5.1.3 Level C. Level C preservation for spools, reels or coils shall be in accordance with MIL-STD-794.

5.1.4 Commercial. Commercial preservation of spools, reels or coils shall be in accordance with ASTM D3951.

5.2 Packing. Packing shall be level A, B, C or Commercial as specified (see 6.2).

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5.2.1 Level A. The packaged spools, reels or coils shall be packed in containers conforming to PPP-B-601, Overseas Type; PPP-B-621, Class 2, Style 4 or PPP-B-585, Class 3, Style 2 or 3. Closure and strapping shall be in accordance with applicable container specifications except the strapping shall conform to QQ-S-781, Type I or IV, Finish A. When the gross weight exceeds 200 pounds or the container length and width is 48" X 24" or more and the weight exceeds 100 pounds, 3 X 4 inch skids (laid flat) shall be applied in accordance with the requirements of the applicable container specification.

5.2.2 Level B. The packaged spools, reels or coils shall be packed in fiberboard containers conforming to PPP-B-636, Class Weather Resistant, Style optional, special requirements; or PPP-B-601, Domestic Type; PPP-B-621, Domestic; PPP-B-585, Class Domestic. Closure and strapping shall be in accordance with applicable container specifications except the strapping shall conform to QQ-S-781, Type I or IV, Finish A. In lieu of the closure and waterproofing requirement in the appendix of PPP-B-636, closure waterproofing shall be accomplished by sealing all seams, corners and manufacturer's joints with Waterproof Packaging Tape, or Box Closure and Sealing Tape, two inches minimum width. When gross weight exceeds 200 pounds or the container length and width is 48" X 24" or more and the weight exceeds 100 pounds, 3 X 4 inch skids (laid flat) shall be applied in accordance with the requirements of the applicable container specification.

5.2.3 Level C. Level C packing for spools, reels or coils shall be in accordance with MIL-STD-794.

5.2.4 Commercial. The preserved spools, reels or coils shall be packed in accordance with ASTM D3951.

5.2.5 Palletized loads. When specified (see 6.2) palletized loads, commensurate with the level of packing specified in the contract or order, shall be palletized in accordance with MIL-STD-147. Palletized loads shall be uniform in size and quantities to the greatest extent possible. If the container is of a size which does not conform to any of the pallet patterns specified in MIL-STD-147, the pallet pattern used shall first be approved by the contracting officer.

5.3 Marking. The requirements for marking shall be in accordance with FED-STD-123.

5.3.1 Levels A, B and C. In addition to any special or other identification marking required by the contract (see 6.2), each unit pack, intermediate and exterior container and unitized load shall be marked in accordance with MIL-STD-129.

5.3.2 Commercial. Commercial markings shall be in accordance with ASTM D3951.

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5.4 General.

5.4.1 Exterior containers. Exterior containers (see 5.2.1, 5.2.2, 5.2.3 and 5.2.4) shall be of minimum tare and cube consistent with the protection required and shall contain equal quantities of identical stock numbered items to the greatest extent practicable.

5.4.2 Packaging inspection. The inspection of these packaging requirements shall be in accordance with 4.4.

6. NOTES

6.1 Intended use. This specification covers packing for use as a sealer between steam sectional boiler headers, uptake dampers, grommets for boiler casing bolting, and in the construction for boiler casing gaskets, for service temperatures up to 500° F.

6.2 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents.

- a. Title, number, and date of this specification.
- b. Size and weight of coil required (see 3.3).
- c. Selection of applicable levels of preservation, packaging, packing, marking and commercial/industrial (see 5.1, 5.2 and 5.3).
- d. When palletized loads are required (see 5.2.5).

6.3 Asbestos rope and wick packing. Asbestos rope and wick packing in accordance with this specification is usually purchased by weight.

6.4 Transportation description. The transportation description and minimum weights applicable to this commodity are:

ROPE:

RAIL:

Rope, asbestos.
Carload minimum weight 30,000 pounds.

MOTOR:

Rope, asbestos.
Truckload minimum weight 30,000 pounds subject to Rule 115, National Motor Freight Classification.

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WICK:

RAIL:

Carload minimum weight 30,000 pounds.

MOTOR:

Wick, asbestos.

Truckload minimum weight 30,000 pounds, subject to Rule 115, National Motor Freight Classification.

6.5 Mandatory hazard material compliance. Asbestos packing specified herein shall comply with all rules and regulations of the latest editions of 29CFR (Code of Federal Regulations) 1910.1001 Asbestos and 29CFR 1910.1200, Hazard Communication.

MILITARY INTERESTS:

CIVIL AGENCY COORDINATING ACTIVITIES:

Military Coordinating Activity:

Custodians:

Army - AR

Navy - SH

Air Force - 99

Review Activities:

Army - AV, EA

DLA - IS

User Activities

Army - AT, ME

Preparing Activity:

Army - AR

Agent:

DLA - IS

(Project 5330-0622)

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NOTE: This form may not be used to request copies of documents, nor to request waivers, deviations, or clarification of specification requirements on current contracts. Comments submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or to amend contractual requirements.

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1. DOCUMENT NUMBER HH-P-41D		2. DOCUMENT TITLE PACKING, ASBESTOS, ROPE AND WICK					
3a. NAME OF SUBMITTING ORGANIZATION		4. TYPE OF ORGANIZATION (Mark one)					
b. ADDRESS (Street, City, State, ZIP Code)		<input type="checkbox"/> VENDOR					
		<input type="checkbox"/> USER					
		<input type="checkbox"/> MANUFACTURER					
		<input type="checkbox"/> OTHER (Specify): _____					
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a. Paragraph Number and Wording:							
				b. Recommended Wording:			
c. Reason/Rationale for Recommendation:							
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7a. NAME OF SUBMITTER (Last, First, MI) - Optional		b. WORK TELEPHONE NUMBER (Include Area Code) - Optional					
c. MAILING ADDRESS (Street, City, State, ZIP Code) - Optional		8. DATE OF SUBMISSION (YYMMDD)					

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