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(See 6.6)

FEDERAL SPECIFICATION

PACKING AND LAGGING MATERIAL, FIBROUS GLASS METALLIC AND PLAIN CLOTH AND TAPE

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 fibrous glass metallic cloth and tape packing for boiler casing access openings or insulation lagging pads and heavy-weight, rubber treated fibrous glass cloth and tape for pipe flange joint gaskets.

1.2 Classification. Packing or lagging covered by this specification shall be of the following types and classes, as specified (see 6.2):

Type I - Fibrous glass, wire-reinforced plain
Class 1 - Cloth
Class 2 - Tape

Type II - Fibrous glass, heavyweight, rubber-treated
Class 1 - Cloth
Class 2 - Tape

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:

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Federal Specifications:

- PPP-B-601 - Boxes, Wood, Cleated Plywood
- PPP-B-621 - Box, Wood, Nailed and Lock-Corner.
- PPP-B-636 - Boxes, Shipping, Fiberboard.
- PPP-B-1055 - Barrier Material, Waterproofed, Flexible.

Federal Standards:

- FED-STD-123 - Marking for Shipment (Civil Agencies).
- FED-STD-191 - Textile Test Methods.
- FED-STD-601 - Rubber: Sampling and Testing.

(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.

(Copies of listed federal and military standards, specifications, Commercial Item Descriptions (CIDs), handbooks and associated documents listed in the Department of Defense Index of Specifications and Standards (DoDISS), should be obtained from the DoD Single Stock Point, Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120. Copies of industry association documents should be obtained from the sponsor. Copies of all other listed documents should be obtained from the contracting activity or as directed by the contracting officer.

(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 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.

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

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.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

- A 478 - Standard Specification for Chromium-Nickel Stainless and Heat-Resisting Steel Weaving Wire.
- D 297 - Standard Methods for Rubber Products-Chemical Analysis. (DoD adopted)
- D 1777 - Standard Method for Measuring Thickness of Textile Materials.
- D 3774 - Standard Test Methods for Width of Woven Fabric.
- D 3775 - Standard Test Method for Fabric Count of Woven Fabric.
- D 3776 - Standard Test Methods for Mass Per Unit Area (Weight) of Woven Fabric.
- D 3951 - Standard Practice for Commercial Packaging. (DoD adopted)
- F 205 - Standard Method for Measuring Diameter of Fine Wire by Weighing.

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.)

(Nongovernment standards and other publications are normally available from the organizations which prepare or which distribute the documents. These documents also may be available in or through libraries or other informational services.)

3. REQUIREMENTS

3.1 First article. When specified in the contract or purchase order, a sample shall be subjected to first article inspection (see 4.3 and 6.3).

3.2 Materials. Type I packing or lagging shall be a plain woven fibrous glass wire-inserted cloth. Type II packing shall be a heavyweight plain woven fibrous glass cloth treated with a natural or synthetic rubber compound. A certificate of compliance shall be prepared to verify that only nonasbestos materials are used.

3.3 Type 1.

3.3.1 Construction. The cloth and tape (classes 1 and 2) shall be woven from wire-reinforced fibrous glass yarn. For cloth, there shall be not less than 20 total strands in the warp and 14 total strands in the fill per square inch plus or minus two ends or picks. Class 1 cloth shall be tested as specified in 4.6.1. For 1/16-inch tape, there shall be not less than 20 total warp strands and not less than 14 total fill strands per square inch plus or minus two ends or picks. For 1/8-inch thick tape, there shall be not less than 40 total warp strands and not less than 28 total fill strands per square inch plus or minus four ends or picks. Construction of the cloth and tape shall be as specified in 4.6.1.

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3.3.1.1 Yarn. Each yarn of the warp and fill shall consist of three ends of textured glass and two ends of type 304 corrosion resistant steel (CRES) wire yarn in accordance with ASTM A 478. The wire and glass shall be plied in a manner that will secure the glass and wire and prevent skinback when tested as specified in 4.6.1.1.

3.3.1.2 Wire insertion. The wire shall be made of type 304 CRES in accordance with ASTM A 478. A certificate of compliance shall be prepared to show that the wire is of the proper composition. The total cross section of the two wires shall be 0.009 ± 0.001 inch in diameter when tested as specified in 4.6.2. Any combination of wire diameters is permitted.

3.3.2 Thickness.

3.3.2.1 Class 1, cloth. Unless otherwise specified (see 6.2), cloth shall have a nominal thickness of 0.041 inch plus or minus 10 percent when tested as specified in 4.6.3.

3.3.2.2 Class 2, tape. Tape shall have a nominal thickness as specified (see 6.2), with a tolerance of plus or minus 10 percent when tested as specified in 4.6.3. Tape 3/64 inch in nominal thickness shall be woven with or without a selvage (see 6.2). Tape 1/16 inch and thicker may either be woven to the specified thickness or made from strips cut from sheet, folded to the specified thickness and sewn.

3.3.3 Weight. The weight of the type I, class 1 cloth shall be 24 ounces per square yard plus or minus 10 percent. The weight of the type I, class 2 woven tapes shall be 44 ounces per square yard plus or minus 10 percent for the 1/16-inch thick tape and 80 ounces per square yard plus or minus 10 percent for the 1/8-inch thick tape. The weight of the tape and cloth shall be tested as specified in 4.6.4.

3.3.4 Width.

3.3.4.1 Class 1, cloth. The nominal width of the cloth shall be as specified (see 6.2), with the following tolerances, when tested as specified in 4.6.8:

Up to and including 40 inches	- plus or minus 1/2 inch.
Over 40 inches but not including 60 inches	- plus or minus 3/4 inch.
60 inches and over	- plus or minus 1 inch.

3.3.4.2 Class 2, tape. Tape shall be 1/2, 3/4, 1 and 2-3/4 inches wide when tested as specified in 4.6.8 with a tolerance of plus or minus 1/8 inch on 1/2-, 3/4- and 1-inch widths. For widths over 1 inch, the tolerance shall be plus or minus 1/4 inch (see 6.2). Tape shall be with or without a selvage as specified (see 6.2).

3.3.5 Breaking strength.

3.3.5.1 Class 1, cloth. The fabric shall have a minimum breaking strength of 300 pounds per inch of width in the longitudinal (warp) direction and 118 pounds per inch of width in the transverse (fill) direction when tested as specified in 4.6.9.

3.3.5.2 Class 2, tape. The tape shall have a minimum breaking strength of 300 pounds per inch of width in the longitudinal (warp) direction when tested as specified in 4.6.9.

3.4 Type II.

3.4.1 Untreated cloth and tape.

3.4.1.1 Construction. The cloth and tape shall be woven from texturized fibrous glass yarn with not less than 10 plus or minus two ends and picks per inch when tested as specified in 4.6.1.

3.4.1.2 Weight. The weight of the cloth shall be 36 ounces per square yard plus or minus 10 percent when tested as specified in 4.6.4.

3.4.1.3 Thickness.

3.4.1.3.1 Class 1, cloth. Unless otherwise specified (see 6.2), cloth shall have a nominal thickness of 0.065 inch plus or minus 10 percent when tested as specified in 4.6.3.

3.4.1.3.2 Class 2, tape. Tape shall have a nominal thickness as specified (see 6.2), with a tolerance of plus or minus 10 percent when tested as specified in 4.6.3. Tape 1/16 inch in nominal thickness shall be woven with or without a selvage (see 6.2). Tape 1/8 inch and thicker may either be woven to the specified thickness or made from strips cut from sheet, folded to the specified thickness, and sewn.

3.4.1.4 Breaking strength.

3.4.1.4.1 Class 1, cloth. The cloth shall have a minimum breaking strength of 300 pounds per inch of width in the longitudinal (warp) direction and 180 pounds per inch of width in the transverse (fill) direction when tested as specified in 4.6.9.

3.4.1.4.2 Class 2, tape. The tape shall have a minimum breaking strength of 300 pounds per inch of width in the longitudinal (warp) direction when tested as specified in 4.6.9.

3.4.2 Rubber coated and impregnated cloth and tape.

3.4.2.1 Rubber compound. Cloth and tape as specified in 3.4.1 shall be coated and impregnated uniformly with rubber compound. The rubber compound shall be not less than 40 percent or more than 55 percent of the finished fabric weight when tested as specified in 4.6.5.

3.4.2.2 Number of plies. The rubber coated and impregnated cloth or tape packing of 1/16-inch nominal thickness shall be one-ply cloth. Packing 1/8, 3/16, and 1/4 inch shall have two, three and four plies respectively, of one-ply cloth.

3.4.2.3 Resistance to cracking. The rubber coated and impregnated packing shall not crack or show any signs of injury when tested as specified in 4.6.6.

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3.4.2.4 Effect of steam. The rubber coated and impregnated packing shall show no significant deterioration, such as cracking or disintegration, of the rubber compound when tested as specified in 4.6.7.

3.4.2.5 Width.

3.4.2.5.1 Class 1, cloth. Unless otherwise specified (see 6.2), the width of cloth packing shall be 40 minus 0 plus 2 inches when tested as specified in 4.6.8. Other widths shall have a tolerance of minus 0, plus 10 percent.

3.4.2.5.2 Class 2, tape. Tape packing shall be 1/2, 3/4, 1 or 2-3/4 inches wide when tested as specified in 4.6.8 with a tolerance of plus or minus 1/8 inch on 1/2, 3/4 and 1 inch widths. For widths over 1 inch, the tolerance shall be plus or minus 1/4 inch (see 6.2). Tape shall be with or without a selvage as specified (see 6.2).

3.5 Length of rolls. The rolls of packing or lagging material shall be of the following lengths and shall consist of not more than two pieces (see 6.2):

Type I, class 1	- 150 or 300 linear feet
Type I, class 2	- 50 or 100 linear feet
Type II, classes 1 and 2	- 50 or 100 linear feet

3.6 Marking. The type II finished packing material shall be marked with the manufacturer's name or trademark neatly stenciled upon each linear yard, and the date of manufacture shall be marked on the end of each roll. For both type I and II, the lagging and packing materials shall be marked "ASBESTOS-FREE" as specified in 5.3.3.

3.7 Workmanship. The finished packing or lagging material shall be free from visible defects which may impair its serviceability when examined as specified in 4.5.1.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as specified herein. Except as otherwise specified in the contract or purchase order, 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 supplies and services conform to prescribed requirements.

4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the specification shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material.

4.2 Classification of inspections. The inspection requirements specified herein are classified as follows:

- (a) First article inspection (see 4.3).
- (b) Quality conformance inspection (see 4.5).

4.2.1 Inspection conditions. Unless otherwise specified herein, all inspections shall be performed in accordance with the test conditions specified in 4.3, 4.4, 4.5 and 4.6.

4.3 First article inspection. First article inspection shall consist of the examinations and tests specified in table I. Certificate of compliance is acceptable for establishing effect of steam (see 3.4.2.4 and 4.6.7).

TABLE I. First article inspection.

Characteristic	Requirement	Test
Construction	3.3.1, 3.4.1.1	4.6.1
Yarn	3.3.1.1	4.6.1.1
Wire insertion	3.3.1.2	4.6.2
Thickness	3.3.2, 3.4.1.3	4.6.3
Weight	3.3.3, 3.4.1.2	4.6.4
Width	3.3.4, 3.4.2.5	4.6.8
Breaking strength	3.3.5, 3.4.1.4	4.6.9
Rubber compound	3.4.2.1	4.6.5
Resistance to cracking	3.4.2.3	4.6.6
Effect of steam	3.4.2.4	4.6.7
Length of rolls	3.5	---

4.3.1 First article unit. Unless otherwise specified (see 6.2), the first article unit shall consist of packing or lagging material for each type and class. The sample shall be of sufficient size to permit the examinations and tests specified in 4.6.

4.3.2 First article inspection report. The contractor shall prepare a first article inspection report.

4.4 Sampling for quality conformance inspection.

4.4.1 Lot. For purposes of sampling, a lot shall consist of all packing or lagging material of the same type and thickness produced under the same conditions.

4.4.2 Sampling for examination. A random sample of rolls shall be selected from each lot of packing for examination as specified in 4.5.1. Examination shall be in accordance with inspection level II of MIL-STD-105. The acceptable quality level (AQL) shall be 2.5 percent defective.

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4.4.3 Sampling for tests. Samples of packing or lagging material shall be selected from each lot for the tests specified in 4.5.2 at special inspection level S4 of MIL-STD-105. The AQL shall be 4.0 percent defective. Each sample piece shall be 12 by 12 inches, or 3 feet long by ordered width.

4.5 Quality conformance inspection.

4.5.1 Examination. Each of the sample rolls selected as specified in 4.4.2 shall be surface examined, measured and weighed to determine conformance to the requirements of table II. Any roll in the sample containing one or more visual or dimensional defects shall not be offered for delivery, and if the number of defective rolls in any sample exceeds the acceptance number for that sample, this shall be cause for rejection of the lot represented by the sample.

TABLE II. Visual inspection and classification of defects types I and II, class 1 woven cloth and class 2 tape.

Defects	Classification	
	Major	Minor
Bias or bowed filling - distorted from horizontal by more than 3 inches and clearly visible ^{1/}		X
Baggy, ridgy, or wavy - clearly visible ^{1/}	X	
Hole, cut, or tear	X	
Spots, streaks, stains:		
Clearly visible, ^{1/} 2 inches or more in combined directions	X	
Clearly visible, ^{1/} less than 2 inches but greater than 1/4 inch in combined directions		X
Smash - any	X	
Broken or missing ends or picks:		
3 or more contiguous, regardless of length	X	
2 contiguous, 2 inches or more in length	X	
2 contiguous, less than 2 inches in length		X
Single, complete pick or single end, 9 inches or over		X
Floats and skips:		X
2 inches or more in combined warp and filling directions	X	
Less than 2 inches in combined warp and filling directions		X
Thick area over 2 inches in length and 1/2 inch or more in width		X
Thin area over 2 inches in length and 1/2 inch or more in width	X	
NOTES:		
(1) Thick warp and filling yarns caused by gluing broken yarns together will not be considered as a defect.		
Selvage defects - curled or folded under		X
Crease - hard embedded and folded over on self	X	

^{1/} At normal inspection distance (approximately 3 feet).

4.5.2 Quality conformance tests. To determine quality conformance, the samples selected for testing in accordance with 4.4.3 shall be subjected to the tests specified in 4.6. If any of the samples fails to meet any of the requirements specified herein, the entire lot shall be rejected. A certificate of compliance is acceptable for establishing effect of steam (see 3.4.2.4 and 4.6.7).

4.6 Test procedures.

4.6.1 Cloth construction (type I, class 1 and type II, class 1). The number of warp yarns and filling yarns shall be determined by the methods for fabric, warp and fill count in accordance with ASTM D 3775 to determine conformance to 3.2 and 3.3.1.1. This method cannot be readily performed on type II treated cloth. Therefore, test samples for type II cloth shall be furnished from the lot before treatment is applied.

4.6.1.1 Yarn skinback (unravel) test (type I). Sixteen to 18 inches of yarn shall be cut from the fabric. Two inches shall be rolled around a mandrel and secured into a vise. Holding the loose end, the yarn shall be extended in a horizontal position until taut. The yarn shall be pinched a minimum of 1-1/2 inches from the end and the glass yarns unravelled, exposing the wires. The exposed wires shall be pinched with pliers. Holding wires taut, the glass yarn shall be held with thumb and forefinger at least 5 inches from the end, and slid back toward the vise. Yarns shall not skin back from the wire as specified in 3.3.1.1.

4.6.2 Diameter of wire (type I). The diameter of the wire shall be tested in accordance with ASTM F 205 to determine conformance to 3.3.1.2.

4.6.3 Thickness. Thickness shall be tested in accordance with ASTM D 1777 to determine conformance to 3.3.2 and 3.4.1.3.

4.6.4 Weight. Weight shall be tested in accordance with ASTM D 3776 to determine conformance to 3.3.3 and 3.4.1.2.

4.6.5 Rubber compound (type II only). The rubber compound content shall be tested in accordance with ASTM D 297 as follows:

- (a) Composite samples. Composite samples, taken as specified in 4.4.3, shall be prepared in accordance with ASTM D 297.
- (b) Friction content. The amount of rubber compound shall be determined in accordance with ASTM D 297.

4.6.6 Resistance to cracking (type II only). A specimen of the packing shall be bent flat on itself and then examined visually for cracks or injury to determine conformance to 3.4.2.3.

4.6.7 Effect of steam (type II only). The effect of steam on packing shall be determined in accordance with method 7421 of FED-STD-601, except that the test shall be carried out using saturated steam at a pressure of 300 pounds per square inch (lb/in²) for a period of 24 hours. The steam-treated specimen shall be examined for conformance to the requirements of 3.4.2.4.

4.6.8 Width. Width shall be tested in accordance with ASTM D 3774 to determine conformance to 3.3.4 and 3.4.2.5.

4.6.9 Breaking strength of cloth and tape.

4.6.9.1 Unless otherwise specified herein, breaking strength shall be determined in accordance with method 5104 of FED-STD-191. Cloth specimens shall be cut in both warp and filling directions. In the case of tape, only the warp yarns shall be tested. Five tests shall be made upon each sample and the results averaged to give the breaking strength of the sample.

4.6.9.2 To prevent the jaws of the testing machine from cutting the cloth, the ends of each specimen shall be coated with rubber or painted with thick shellac for a distance of 1-5/8 inches from each end and allowed to dry in the air before ravelled to the 1 inch width, and small pieces of manila paper or soft cotton twill fabric shall be inserted between the specimen and the face of each jaw.

4.7 Inspection of packaging. Sample packages and packs, and the inspection of the preservation-packaging, packing and marking for shipment and storage shall be in accordance with the requirements of section 5 and the documents specified therein.

5. PACKAGING

5.1 Preservation. Preservation shall be level A or commercial, as specified (see 6.2).

5.1.1 Level A. Each roll (see 3.5) shall be wrapped in barrier material conforming to PPP-B-1055. Seams, joints and closures of the barrier material shall be sealed with adhesive or other materials to afford waterproofness equal to the wrap itself. A minimum of 2-inch overlap shall be provided at all overlapping edges.

5.1.2 Commercial. Each roll (see 3.5) shall be unit protected in accordance with ASTM D 3951.

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

5.2.1 Level A. Rolls of lagging material preserved as specified in 5.1, shall be packed in nailed wood or wood cleated plywood containers conforming to PPP-B-621, class 2 or PPP-B-601 overseas type, with selection of the container at the contractor's option. Shipping containers shall not exceed a gross weight of 200 pounds and container closure and reinforcement shall be in accordance with the appendix to the container specification.

5.2.2 Level B. Rolls of lagging material preserved as specified in 5.1 shall be packed in fiberboard containers conforming to PPP-B-636 class weather-resistant. Containers shall be closed method V and reinforced with nonmetallic bonding or pressure sensitive reinforced tape in accordance with the appendix to the box specification.

5.2.3 Level C. Rolls of lagging material preserved as specified in 5.1, shall be packed as specified for level B except that class domestic containers may be used; closure shall conform to method I and reinforcement is not required. When specified (see 6.2), rolls of lagging material preserved as specified in 5.1 may be shipped without exterior containers as specified herein.

5.2.4 Commercial. Rolls of lagging material preserved as specified in 5.1 shall be packed in accordance with ASTM D 3951.

5.3 Palletization.

5.3.1 Military agencies. When specified (see 6.2), the packed or unpacked (see 5.2.3 and 6.2) rolls of lagging material shall be palletized in accordance with MIL-STD-147.

5.3.2 Civil agencies. The packed or unpacked (see 5.2.3 and 6.2) rolls of lagging material shall be palletized on expendable wooden pallets, 2- or 4-way design, to facilitate handling, in accordance with normal commercial practice. The palletized load shall not exceed 2,500 pounds in weight, 63 inches in height, 56 inches in length, and 45 inches in width. Less than half pallet loads need not be palletized.

5.4 Marking.

5.4.1 Civil agencies. In addition to any special marking required by the contract or order (see 6.2), rolls or palletized unit loads shall be marked in accordance with FED-STD-123.

5.4.2 Military agencies. In addition to any special marking required (see 6.2 or herein), levels A, B, and C interior wraps, exterior containers and palletized unit loads shall be marked in accordance with MIL-STD-129, commercial packs and palletized unit loads in accordance with ASTM D 3951.

5.4.3 Special marking. Each roll of lagging material wrapping or unit protection applied in accordance with 5.1 and each container in accordance with 5.2 shall be marked "ASBESTOS-FREE" in accordance with MIL-STD-129.

6. NOTES

6.1 Intended use. Type I packing or lagging material is primarily intended for use as a boiler access opening gasket and as the inner surface of insulation blankets and covers for service temperatures up to a nominal 1050 degrees Fahrenheit (°F). Type II packing is intended for use in flange joint gaskets for air, cold water, hot water and brine under pressures up to 300 lb/in², for steam pressures up to 300 lb/in², and at temperatures up to a nominal 500°F.

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

- (a) Title, number, and date of this specification.
- (b) Type and class required (see 1.2).
- (c) When first article inspection is required (see 3.1).
- (d) Thickness of cloth or tape required (see 3.3.2.1, 3.3.2.2, 3.4.1.3.1 and 3.4.1.3.2).
- (e) Whether or not selvage is required for tape (see 3.3.2.2, 3.3.4.2, 3.4.1.3.2 and 3.4.2.5.2).
- (f) Width of cloth or tape required (see 3.3.4.1, 3.3.4.2, 3.4.2.5.1 and 3.4.2.5.2).
- (g) Length of roll required (see 3.5).

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- (h) When first article unit is other than specified (see 4.3.1).
- (i) Level of preservation and packing required (see 5.1 and 5.2).
- (j) When exterior containers are not required (see 5.2.3).
- (k) When palletization is required for military agencies (see 5.3.1).

6.3 First article. When a first article inspection is required, the items should be a first article sample. The first article should consist of one unit. The contracting officer should include specific instructions in acquisition documents regarding arrangements for examinations, approval of first article test results and disposition of first articles. Invitations for bids should provide that the Government reserves the right to waive the requirement for samples for first article inspection to those bidders offering a product which has been previously acquired or tested by the Government, and that bidders offering such products, who wish to rely on such production or test, must furnish evidence with the bid that prior Government approval is presently appropriate for the pending contract.

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

Rail:

Fibrous glass, reinforced with metal.
Carload minimum weight 30,000 pounds.

Motor:

Fibrous glass, reinforced with metal.
Motor volume minimum weight 30,000 pounds.

6.5 Subject term (key word) listing.

Fibrous glass, rubber-treated
Fibrous glass, wire-reinforced plain

6.6 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue due to the extensiveness of the changes.

MILITARY INTERESTS:

CIVIL AGENCY COORDINATING ACTIVITIES:

Custodians

GSA-FSS(7FXE)

Army - MR
Navy - SH
Air Force - 99

Review Activities

Army - AT, AV
Navy - MC
Air Force - 82
DLA - IS

Preparing activity:
Navy - SH
(Project 5330-0705)