NOTE The document identifier and heading has been changed on this page to reflect that this is a performance specification There are no other changes to this document The document identifier on subsequent pages has not been changed, but will be changed the next time this document is revised.

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(See 6 5)

PERFORMANCE SPECIFICATION

DECK COVERING, LIGHTWEIGHT, NONSLIP, ABRASIVE PARTICLE COATED FABRIC, FILM, OR COMPOSITE, AND SEALING COMPOUND

This specification is approved for use within the Naval Sea Systems Command, Department of the Navy, and is available for use by all Departments and Agencies of the Department of Defense

1 SCOPE

1 1 Scope This specification establishes the requirements for a self-adhering, nonslip deck covering and sealing compound where safe footing is required aboard ship

2 APPLICABLE DOCUMENTS

2 1 Government documents

2 1 1 Specifications and standards The following specifications and standards form a part of this specification to the extent specified herein Unless otherwise specified, the issues of these documents shall be those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation

SPECIFICATIONS

FEDERAL

PPP-B-636 - Boxes, Shipping, Fiberboard
PPP-C-96 - Cans, Metal, 28 Gage and Lighter
PPP-C-186 - Containers, Packaging and Packing for Drugs, Chemicals, and Pharmaceuticals.
PPP-F-320 - Fiberboard, Corrugated and Solid, Sheet Stock (Container Grade) and Cut Shapes
PPP-P-704 - Pails, Metal (Shipping, Steel, 1 Through 12 Gallons)

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to. Commander, Naval Sea Systems Command, SEA 55Z3, Department of the Navy, Washington, DC 20362-5101 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter

AMSC N/A FSC 7220

MILITARY

MIL-L-19140 - Lumber and Plywood, Fire-Retardant Treated

STANDARDS

MILITARY

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

MIL-STD-1186 - Cushioning, Anchoring, Bracing, Blocking and Waterproofing, with Appropriate Test Methods

MIL-STD-1623 - Fire Performance Requirements and Approved Specifications for Interior Finish Materials and Furnishings (Naval Shipboard Use)

MIL-STD-2073-1 - DoD Materiel Procedures for Development and Application of Packaging Requirements

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

2.2 Other publications. The following documents form a part of this specification to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted shall be those listed in the issue of the DoDISS specified in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS shall be the issue of the nongovernment documents which is current on the date of the solicitation.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

B74.12 - Size of Abrasive Grain-Grinding Wheels, Polishing and and General Industrial Uses (DoD adopted)

(Application for copies should be addressed to the American National Standards Institute, 1430 Broadway, New York, NY 10018.)

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

D 3951 - Standard Practice for Commercial Packaging (DoD adopted)

(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.)

2.3 Order of precedence. In the event of a conflict between the text of this specification and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this specification shall take precedence. Nothing in this specification, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained.

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 6.2).

3.2 Material, deck covering. The deck covering shall consist of a pad having a uniform closed coat on one surface with abrasive particles of aluminum oxide or silicon carbide, minimum size number 60 grit in accordance with ANSI B74.12, bonded to the fabric, film, or composite with a resin or similar material. The back of the fabric, film, or composite shall be coated with a pressure-sensitive type of adhesive and covered with a removable protective cover. Asbestos fibers and components containing asbestos fibers are prohibited. When specified in the contract or order, a certificate of compliance shall be prepared (see 6.2.2).

3.2.1 Recovered materials. Unless otherwise specified herein, all material incorporated in the products covered by this specification shall be new and may be fabricated using materials produced from recovered materials to the maximum extent practicable without jeopardizing the intended use. The term "recovered materials" means materials which have been collected or recovered from solid waste and reprocessed to become a source of raw materials, as opposed to virgin raw materials. Unless otherwise specified, none of the above shall be interpreted to mean that the use of used products is allowed under this specification.

3.2.2 Adhesive and protective cover. The adhesive shall be pressure-sensitive, coated to cover the back side of the deck covering, and shall adhere immediately to smooth, clean, dry deck surfaces without wrinkling, curling, breaking, or lifting. A protective cover shall be used to prevent contamination of the adhesive by foreign matter until the deck treads are applied.

3.2.3 Sealing compound. The sealing compound shall be a cold-setting type ready for use, and shall have no deleterious effect on the steel or aluminum deck surfaces or on the decking material to which applied. The compound shall be stored in airtight metal containers for a minimum of 18 months without deterioration.

3.3 Protective cover removal. The effort required to strip the protective cover away from the adhesive film shall be as shown in table I (see 4.6.1 and 4.6.1.1).

TABLE I. Removal of protective cover

Condition	Maximum effort required to pull protective cover away from adhesive film (ounces)
As received	60
After 7 days aging at 150 ± 5°F	60

3.3.1 Protective cover and adhesive transfer. There shall be no transfer of protective cover material fragments to the adhesive surface or adhesive to protective cover surface, when the protective cover is stripped away at a rate of 1 foot per second (see 4.6.1.2).

3.4 Adhesion.

3.4.1 Shear strength. The deck covering shall conform to the requirements of table II for a minimum of 1 minute (see 4.6.2.1 and 4.6.2.1.1).

TABLE II. Shear adhesive strength.

Minimum supported weight (pounds)	
No aging	After 7 days aging
10	10

3.4.2 Strip strength. The deck covering shall have the adhesive strength shown in table III (see 4.6.2.2 and 4.6.2.2.1).

TABLE III. Strip adhesive strength.

Drying time	Temperature	Adhesive strength (pounds) minimum
48 hours	80 ± 5°F	0.75

3.5 Thickness and weight. Deck covering shall not exceed 0.080 inch in thickness when applied to the steel decks and shall weigh not more than 5 ounces per square foot (see 4.6.3).

3.6 Size. Deck covering shall be furnished in treads 6 by 24 inches, 8 by 30 inches, or in rolls 1-1/2, 6, 8, 12, and 24 inches wide and 96 feet long, as specified (see 6.2.1).

3.7 Color. Unless otherwise specified (see 6.2.1), the color of the deck covering shall be black.

3.8 Resistance to detergent solution. Deck covering shall not soften, stain, streak, nor show any cosmetically objectionable loss in color (see 4.6.4).

3.9 Nonslip properties. The material shall not show friction factors less than those listed in table IV (see 4.6.5).

TABLE IV Nonslip properties

Property	Contacting surface condition		
	Dry	Wet	Oily
Factor of static friction			
Leather	0 60	0 60	----
Rubber	0 60	0 60	0 60
Factor of sliding friction			
Leather	0 40	0 40	----
Rubber	0 50	0 60	0 30

3 10 Solids content The sealing compound shall have a total solids content of not less than 20 percent (see 4 6 6 1)

3 11 Ash content The ash content of the sealing compound shall be not more than 4 percent (see 4 6 6 2)

3 12 Viscosity Viscosity shall be not less than 60 seconds nor more than 160 seconds (see 4 6 6 3)

3 13 Fire performance The fire performance of the deck covering shall conform to the maximum test requirements set forth in MIL-STD-1623 (see 4 6 7)

3 14 Labeling Each container shall be clearly labeled with directions for application and with the following information

(a) Brand name
(b) Preparation of surface including cleaning agents and primers if required
(c) Method of application
(d) Limit of safe storage and stowage
(e) Safety precautions during application and storage and stowage

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 4.4)

4.2.1 Inspection conditions. Unless otherwise specified (see 6.2.1), all inspections shall be performed in accordance with the test conditions specified herein.

4.3 First article inspection. First article inspection shall consist of the tests specified in table V. When specified in the contract or order, a first article inspection report and procedure shall be prepared (see 6.2.2).

TABLE V. First article inspection

Inspection	Requirement	Test
Covering removal	3.3	4.6.1
Adhesion	3.4	4.6.2
Thickness and weight	3.5	4.6.3
Detergent resistance	3.8	4.6.4
Nonslip properties	3.9	4.6.5
Solids content	3.10	4.6.6.1
Ash content	3.11	4.6.6.2
Viscosity	3.12	4.6.6.3
Fire resistance	3.13	4.6.7

4.4 Quality conformance inspection. Quality conformance inspection shall be in accordance with table VI and 4.4.1 through 4.4.2.2. When specified in the contract or order, quality conformance inspection reports shall be prepared (see 6.2.2).

TABLE VI. Quality conformance inspection

Inspection	Requirement	Test
Covering removal	3.3	4.6.1
Adhesion	3.4	4.6.2
Thickness and weight	3.5	4.6.3
Detergent resistance	3.8	4.6.4
Nonslip properties	3.9	4.6.5
Solids content	3.10	4.6.6.1
Ash content	3.11	4.6.6.2
Viscosity	3.12	4.6.6.3
Fire resistance	3.13	4.6.7

4 4 1 Lot

4 4 1 1 Deck covering A lot shall consist of not more than 10,000 square feet of deck covering offered for delivery at one time

4 4 1 2 Sealing compound A lot shall consist of sealing compound from one manufacturing batch offered for delivery at one time

4 4 2 Sampling for quality conformance inspection

4 4 2 1 Sampling for visual and dimensional examination of treads Sample treads shall be selected at random from each lot of deck covering with lot acceptance in accordance with MIL-STD-105, single sampling plan for normal inspection inspection level I, with an acceptable quality level (AQL) of 4 0

4 4 2 2 Sampling for visual and dimensional examination of material in rolls Sample rolls shall be selected at random from each lot of deck covering with lot acceptance in accordance with MIL-STD-105, single sampling plan for normal inspection, inspection level I, with an AQL of 4 0

4 4 2 3 Sampling for examination of sealing compound containers A random sample of filled containers shall be selected from each lot of sealing compound with lot acceptance in accordance with MIL-STD-105 single sampling plan for normal inspection, inspection level I, with an AQL of 2 5

4 4 2 4 Sampling for tests of deck covering Four representative 6- by 24-inch samples of deck covering shall be selected from each lot for tests The samples selected shall be subjected to the tests specified in 4 4 If any sample fails any test, the lot shall be rejected

4 4 2 5 Sampling for tests of sealing compound A representative 1-quart sample of sealing compound from each lot shall be selected for the test specified in 4 4 If the lot is offered for delivery in containers the sample shall be taken at random from five containers unless the lot is contained in fewer than five containers in which case each container shall be sampled The sample shall be kept in a tightly closed container to prevent evaporation If any sample fails any test, the lot shall be rejected

4 4 3 Examinations

4 4 3 1 Visual and dimensional examination of deck covering Each of the sample treads or rolls selected in accordance with 4 4 2 1 and 4 4 2.2 shall be visually and dimensionally examined to determine conformance to the requirements of this specification which do not require tests.

4 4 3 2 Examination of sealing compound containers Each of the filled containers selected for sampling in accordance with 4 4 2 3 shall be examined for defects of the container and the closure, for evidence of leakage, and for unsatisfactory markings Each container shall also be weighed to determine the amount of the contents Any container having one or more defects or under required fill shall be rejected, and if the number of defective containers in any sample exceeds the acceptance number for that sample the lot represented by the sample shall be rejected

4 5 Preparation of samples The surface of the steel plates to which the deck covering is attached shall be free from all rust, scale, and organic matter The steel samples with deck covering applied, including sealing compound, shall be cured for 48 hours at room temperature before conducting tests Unless otherwise specified (see 6 2 1), all tests are referred to atmospheric conditions at a temperature of 70 to 75 degrees Fahrenheit (°F) and relative humidity of 65 ± 2 percent

4 6 Test procedures

4 6 1 Protective covering removal Twenty specimens 1 by 7 inches shall be prepared from each lot of deck covering Ten specimens shall be tested immediately and ten specimens placed in an oven at 150 ± 5°F for 7 days cooled for 2 hours, and then tested in accordance with 4 6 1 1 The amount of effort required to pull protective cover away from adhesive film shall be determined for each of ten specimens, the results averaged, and the average of the ten results shall not exceed the maximum values specified in 3 3

4 6 1 1 Apparatus and procedure The apparatus shall be a pendulum type tensile testing machine The test shall be made with the stressing jaw moving at a speed of 12 inches per minute The protective cover of the 1- by 7-inch specimen of deck covering shall be partially removed from one end so that the free protective cover end may be placed in the stressing jaw and the deck covering end placed in the fixed jaw The maximum tension required to remove the remainder of the protective cover shall be taken as the amount of removal effort required for each specimen The pawls of the pendulum arm shall be taped back in an open position The scale shall be graduated to record results in ounces

4 6 1 2 Protective cover and adhesive transfer The protective cover of a 6- by 24-inch tread shall be pulled away from the deck covering at a speed of 1 foot per second The protective cover and the decking material shall then be examined for signs of transfer of adhesive to the protective cover surface and for retention of protective cover fragments by the achesive surface (see 3 3 1

4 6 2 Adhesion

4 6 2 1 Shear strength Fifteen specimens, 1 by 7 inches, shall be prepared from each lot of deck covering Five specimens shall be tested immediately and ten specimens conditioned in an oven at 150 ± 5°F for 7 days, and tested in accordance with 4 6 2 1 1 The results shall be as specified in 3 4 1

4 6 2 1 1 Procedure The protective cover shall be stripped back approximately 2 inches from one end of each 1- by 7-inch specimen as it is to be tested, care being taken to avoid any foreign matter coming in contact with the exposed adhesive film With the use of a template such as shown on figure 1, the exposed end shall be adhered to a polished clean stainless steel plate so that exactly 1 square inch of the specimen has contact The plate shall then be inserted in a jig, and pressure applied by any hydraulic or mechanical press to provide 65 pounds per square inch (lb/in^2) of pressure in mounting test specimens The specimen shall remain under this pressure for 1 minute The ten specimens aged in oven at 150 ± 5°F for 7 days and the five specimens without

aging shall be mounted in the above manner, and allowed to set at room temperature for 48 hours, after which time five each of aged and unaged specimens shall be tested for adhesion at room temperature (80 ± 5°F). The tests shall be made by fixing the steel plate in a vertical position leaving 6 inches of the specimen strip below to which a weight can be attached and suspended as shown on figure 2. Weight of the amount specified in table II shall be placed in the weight pan. The deck covering shall be considered to have passed this test if at least three of each of group of five specimens have supported the weights specified for a period of 1 minute.

4.6.2.2 Strip strength. Eight samples of high tensile steel plates and eight samples of galvanized steel plates, each 10 by 16 inches by 1/8 inch thick shall be prepared by buffing the surface on one side with a power-driven, flexible-backed number 24 abrasive disk using such pressure as will just polish the surface of the metal. The buffed plates shall then be cleaned with a solvent. The deck-covering, with protective cover removed, shall be applied to the clean steel plates by rolling five times in each direction with a roller traveling at approximately 7-1/2 feet per minute. The roller shall be as shown on figures 3 and 4 and shall be composed of steel disks 7 inches in diameter and approximately 1/4 inch in thickness. The disks shall have a central hole 2 inches in diameter and shall be assembled on a 1/2-inch diameter rod, with a disk having a 5/8-inch hole fastened on each end. When the roller is pulled along by the handle, the disks shall be free to align themselves vertically so that they conform to local irregularities of the specimen surface in 1/4-inch steps. The 7-inch diameter roller shall result in a loading of 10 lb/in² of width which approximates 65 lb/in². The result shall be as specified in 3.4.2.

4.6.2.2.1 Adhesion at room temperature (80 ± 5°F). Three specimens attached to tensile steel and three specimens attached to a galvanized steel plate prepared as specified in 4.6.2.2 shall be employed. The specimens shall be allowed to dry for a total of 48 hours and then immediately tested. The method of testing strip adhesion to metal shall be as shown on figure 5. Adhesive strength shall be taken as the highest load at which the separation in 1 minute does not exceed 1 inch. The average of the two highest values obtained on the three strips shall then be considered as the adhesive strength between the deck covering and the metal.

4.6.3 Thickness and weight. The deck covering shall be applied to three 6-inch square 0.025-inch thick steel plates which have been previously measured and weighed. When the material has set for 48 hours, the three test specimens including the steel plates, shall each be weighed to the nearest 0.1 ounce. The length and width shall be measured to the nearest 0.01 inch, and the thickness to the nearest 0.001 inch. From the difference between the weight of the coated steel plate and the uncoated steel plate, the weight of the material shall be computed in ounces per square foot per thickness as applied. The thickness shall be determined by measuring the steel plates, with and without the coating, at 16 equally distributed points on the specimen by means of a dial thickness gauge and a template. The difference in thickness of the mounted steel plate and the coated steel plate shall be averaged to determine the thickness of the material. The final weight shall be the average of the three specimens, and shall not exceed the requirements of 3.5.

4 6 4 Resistance to detergent solution Specimens of deck covering, 6 by 2 inches, shall be immersed for 1 hour in the solution specified herein so that a 3-inch section of the specimen is immersed in the solution and the upper half remains unexposed for purpose of comparison The liquid solution shall be made by dissolving a detergent in tepid water to form a 0 5-percent solution, then adding lampblack until the solution is dark gray After immersion the specimen shall be rinsed for 1 minute with tap water at 140°F and dried with an air jet The specimen shall then be examined for softening, stains streaking, or loss of color as required in 3 8

4 6 5 Nonslip properties The factors of friction of the deck covering against leather and rubber shall be determined respectively The leather shall be oak-tanned sole leather which has been sanded smooth with grade 0 garnet paper The rubber shall be a vulcanized compound with a hardness range of 60 to 80 durometer "A" Tests shall be made with the contact surfaces dry, wet with a solution of 4 percent sodium chloride in water, and oiled, using ASE 10W oil at a temperature between 60 and 80°F The leather and rubber shall be cut to a size 2 by 4 inches and mounted on a block of the same size A load of 33 pounds shall be applied uniformly over a 2- by 4-inch block during the test A pendulum-type tensile testing machine shall be used to measure the force required to move the weight block on the deck-covered surface The moving jaw of the tensile testing machine shall be set to move at the rate of 7-1/2 feet per minute Approximately 1 cup of the saltwater solution shall be poured over the deck covering surface in making the wet test For the oil tests the oil shall be applied to the center of the leather or rubber sample and on the deck covering surface to spread evenly over the entire surface The nonslip properties shall conform to 3 9

4 6 6 Sealing compound tests

4 6 6 1 Determination of solids content The total solids content shall meet the minimum requirements specified in 3 10 when determined as follows Approximately 10 grams of the compound shall be placed in a low-form weighing bottle 60 millimeters (mm) wide by 30 mm high The bottle shall be covered and weighed The cover shall be removed and all solvent evaporated at 158°F (approximately 4 hours required) The bottle shall then be placed in a desiccator to cool and to be weighed Solids content shall be calculated as follows

$$\text{Percentage of total solids} = \frac{\text{weight of residue}}{\text{weight of sample}} \cdot 100$$

4 6 6 2 Determination of ash content Ash content shall be determined as follows Using a porcelain crucible or dish, add 10 to 25 milliliters of compound carefully weighing the amount added Place on a stone slab on the floor of a hood Ignite by playing the flame of a burner on the surface of the sealer and allow to burn quietly until most of the compound is burned off, then transfer to a muffle oven or over a flame and continue heating at a low temperature (not over a dull red) until all carbonaceous matter is consumed Cool, weigh, and compute in percentage of ash (see 3 11)

4 6 6 3 Viscosity The apparatus shall be a Ford cup-type viscosimeter, or equivalent, and shall consist of a heavy polished metal cup with a conical bottom fitted with a standard 1/4-inch diameter orifice The cup shall be provided with an overflow well at the top, and the tip shall be protected by a cylindrical jacket extending 1/4-inch below the orifice The cup shall be held in a ring support during the test

4 6 6 3 1 Method of test The cup shall be filled by holding the index finger over the orifice until the cement just overflows The finger shall then be released and the time noted at the first evidence of a break in the flow of the cement through the orifice The test shall be conducted at a temperature of 80 ± 5°F The viscosity shall be taken as the average of three tests to meet the requirements of 3 12

4 6 7 Fire resistance test The test shall be conducted in accordance with the applicable test method specified in MIL-STD-1623 (see 3 13)

4 7 Inspection of packaging Sample packages and packs, and the inspection of the preservation packing, and marking for shipment, stowage and storage shall be in accordance with the requirements of section 5 and the documents specified therein

5 PACKAGING

(The packaging requirements specified herein apply only for direct Government acquisition)

5 1 General requirements

5 1 1 Navy fire-retardant requirements

(a) Lumber and plywood When specified (see 6 2 1), all lumber and plywood (including laminated veneer material used in shipping container construction members blocking, bracing and reinforcing shall be fire-retardant treated material conforming to MIL-L-19140 as follows

Levels A and B - Type II - weather resistant
Category 1 - general use
Level C - Type I - non-weather resistant
Category 1 - general use

(b) Fiberboard When specified (see 6 2 1) fiberboard used in the construction of class-domestic non-weather resistant fiberboard and sealed fiberboard boxes (including interior packaging forms) shall meet the flamespread and specific optic density requirements specified in PPP-F-320

5 2 Preservation Preservation shall be level A, C, or commercial as specified (see 6 2 1)

5 2 1 Level A

5 2 1 1 Deck covering Deck covering of like kind and size, and in quantities specified (see 6 2 1) shall be packaged in fiberboard boxes conforming to class weather-resistant in accordance with PPP-B-636 Box closure waterproofing and reinforcing shall be in accordance with method V of the appendix to the box specification

5 2 1 2 Sealing compound Sealing compound shall be furnished in 5-ounce metal collapsible tubes, 1-gallon cans, or 5-gallon pails, as specified (see 6 2 1)

5 2 1 2 1 Collapsible tubes Five-ounce collapsible tubes shall conform to group B class at contractor option, in accordance with PPP-C-186 with each tube placed in folding or set-up paperboard box Intermediate pack quantities and box closure shall be as specified in the appendix to the applicable box specification The intermediate domestic corrugated fiberboard box shall be constructed of fire-retardant fiberboard

5 2 1 2 2 One-gallon cans One-gallon cans shall conform to type V, class 2 in accordance with PPP-C-96 Exterior plan B coating and side seam striping are required Cans shall be provided with wire handles which shall be galvanized or protectively coated to resist corrosion After filling, the plugs shall be spot soldered to the friction ring at three points spaced equidistant from each other around the periphery of the plug

5 2 1 2 3 Five-gallon pails Five-gallon pails shall conform to type II class at contractor option in accordance with PPP-P-704

5 2 2 Level C Deck covering and sealing compound shall be processed as required for level A, except that fiberboard boxes shall be of the domestic class (but constructed of fire-retardant material) and cans will not require the exterior plan B coating

5 2 3 Commercial Deck covering and sealing compound in quantities as required for level A shall be preserved in accordance with ASTM D 3951

5 3 Packing Packing shall be level A, B, C or commercial as specified (see 6 2 1)

5 3 1 General requirements for levels A, B, and C Shipping containers shall contain identical quantities of identical materials (deck treads, rolls or sealing compound) and shall be of minimum weight and uniform size Shipping containers shall be provided with fiberboard pads, liners, or other media to provide protection to all corners and edges of the packed sheets from damage during handling, shipment, storage, and stowage

5 3 2 Levels A, B, and C containers Deck covering preserved as specified (see 5 2), shall be packed in exterior shipping containers, for the level of packing specified (see 5 3), as stated in appendix C table VII of MIL-STD-2073-1 and herein Unless otherwise specified (see 6 2 1), container selection (including container options) shall be at the contractor's option

5 3 2 1 Waterproofing When specified (see 6 2 1), level A and B shipping containers shall be provided with waterproof caseliners linings, wraps or shrouds in accordance with the waterproofing requirements of MIL-STD-1186

5 3 2 2 Closure and gross weight

5 3 2 2 1 Closure Container closure, reinforcing, or banding shall be in accordance with the applicable container specification or appendix thereto except that weather-resistant fiberboard boxes shall be closed in accordance with method V and reinforced with non-metallic or tape banding, and domestic fiberboard boxes shall be closed in accordance with method I using pressure sensitive tape

5 3 2 2 2 Weight Wood, plywood and cleated type boxes exceeding 200 pounds gross weight shall be modified by the addition of skids in accordance with MIL-STD-2073-1 and the applicable container specification or appendix thereto

5 3 2 3 Sealing compound Sealing compound preserved as specified (see 5 1) shall be packed in containers for the level of packing specified (see 5 2) in accordance with PPP-C-186 PPP-C-96, PPP-P-704, and the applicable appendix thereto

5 3 3 Commercial Commercial packing shall be in accordance with ASTM D 3951 and herein

5 3 3 1 Container modification Shipping containers exceeding 200 pounds gross weight shall have a minimum of two, 3- by 4-inch nominal wood skids laid flat or a skid- or sill-type base which will support the material and facilitate handling by mechanical handling equipment during shipment storage and stowage

5 4 Palletized unit loads When specified (see 6 2 1) shipping containers shall be palletized in accordance with appendix F of MIL-STD-2073-1

5 5 Marking

5 5 1 Levels A, B and C In addition to any special marking required (see 3 14 and 6 2 1), interior (unit and intermediate) packs shipping containers, and palletized unit loads shall be marked (including bar coding, in accordance with MIL-STD-2073-1 and the applicable container specification

5 5 2 Commercial In addition to any special marking required (see 3 14 and 6 2 1) interior (unit and intermediate) packs shipping containers and palletized unit loads shall be marked in accordance with ASTM D 3951 In addition, bar coding shall be applied in accordance with MIL-STD-2073-1

6 NOTES

6 1 Intended use This deck covering is intended for use aboard ship where safe footing is desired, such as the foot and head of ladders and in front of serving tables in messing areas The sealer is used to seal the periphery of the tread to prevent ingress of water and other liquids especially for cotton-backed treads

6.2 Ordering data

6.2.1 Acquisition requirements. Acquisition documents should specify the following

(a) Title, number and date of this specification
(b) When first article inspection is required
(c) Size of threads or width of rolls required (see 3.3)
(d) Color of deck covering, if other than as specified (see 3.7)
(e) Inspection conditions, if other than as specified (see 4.2.1)
(f) Atmospheric testing conditions, if other than specified (see 4.5)
(g) When fire retardant materials are not required (see 5.1.1)
(h) Level of preservation and packing required (see 5.2 and 5.3)
(i) Deck covering quantity required (see 5.2.1.1)
(j) Quantity and container size of sealing compound required (see 5.2.1.2)
(k) Deck covering container selection, if other than specified (see 5.3.2)
(l) When waterproofing is required for level A and B shipping containers (see 5.3.2.1)
(m) When palletization is required (see 5.4)
(n) Special marking required (see 5.5.1 and 5.5.2)

6.2.2 Data requirements. When this specification is used in an acquisition and data are required to be delivered, the data requirements identified below shall be developed as specified by an approved Data Item Description (DD Form 1664) and delivered in accordance with the approved Contract Data Requirements List (CDRL) incorporated into the contract. When the provisions of DoD FAR Supplement, Part 27, Sub-Part 27.475-1 (DD Form 1423) are invoked and the DD Form 1423 is not used, the data specified below shall be delivered by the contractor in accordance with the contract or purchase order requirements. Deliverable data required by this specification are cited in the following paragraphs

Paragraph no.	Data requirement title	Applicable DID no.	Option
3.2	Certificate of compliance	DI-E-2121	----
4.3	First article inspection report	DI-T-4902	----
4.3	First article inspection procedure	DI-T-4901	----
4.4	Inspection and test reports	DI-T-5029	----

Data item descriptions related to this specification, and identified in section 6, will be approved and listed as such in DoD 5010.12-L, AMSDL. Copies of data item descriptions required by the contractors in connection with specific acquisition functions should be obtained from the Naval Publications and Forms Center or as directed by the contracting officer.)

6 2 2 1 The data requirements of 6 2 2 and any task in sections 3, 4, or 5 of this specification required to be performed to meet a data requirement may be waived by the contracting/acquisition activity upon certification by the offeror that identical data were submitted by the offeror and accepted by the Government under a previous contract for identical item acquired to this specification This does not apply to specific data which may be required for each contract regardless of whether an identical item has been supplied previously (for example test reports).

6 3 First article When a first article inspection is required the item should be 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 Subject term (key word) listing

Adhesive
Aluminum oxide
Shear strength
Silicon carbide
Strip strength
Viscosity

6 5 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

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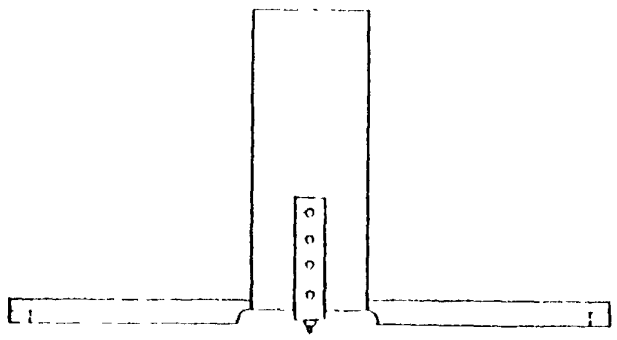
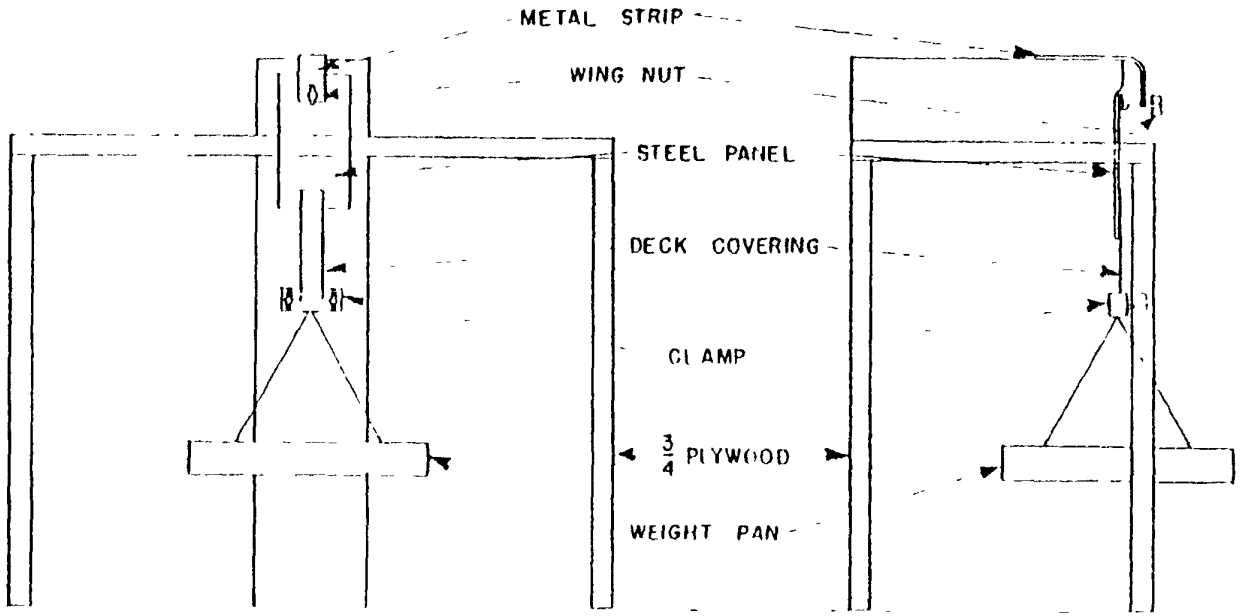
FIGURE 1. Template.

SH 2808



PLAN VIEW

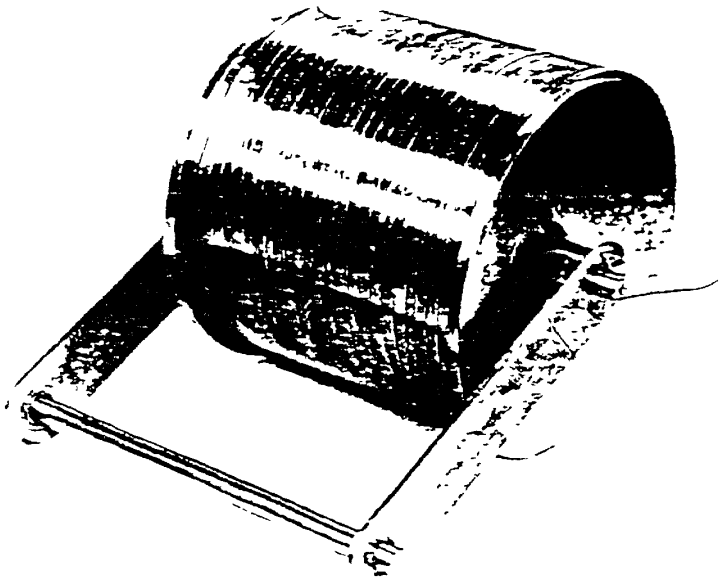


FRONT ELEVATION

SIDE ELEVATION

SH 5877

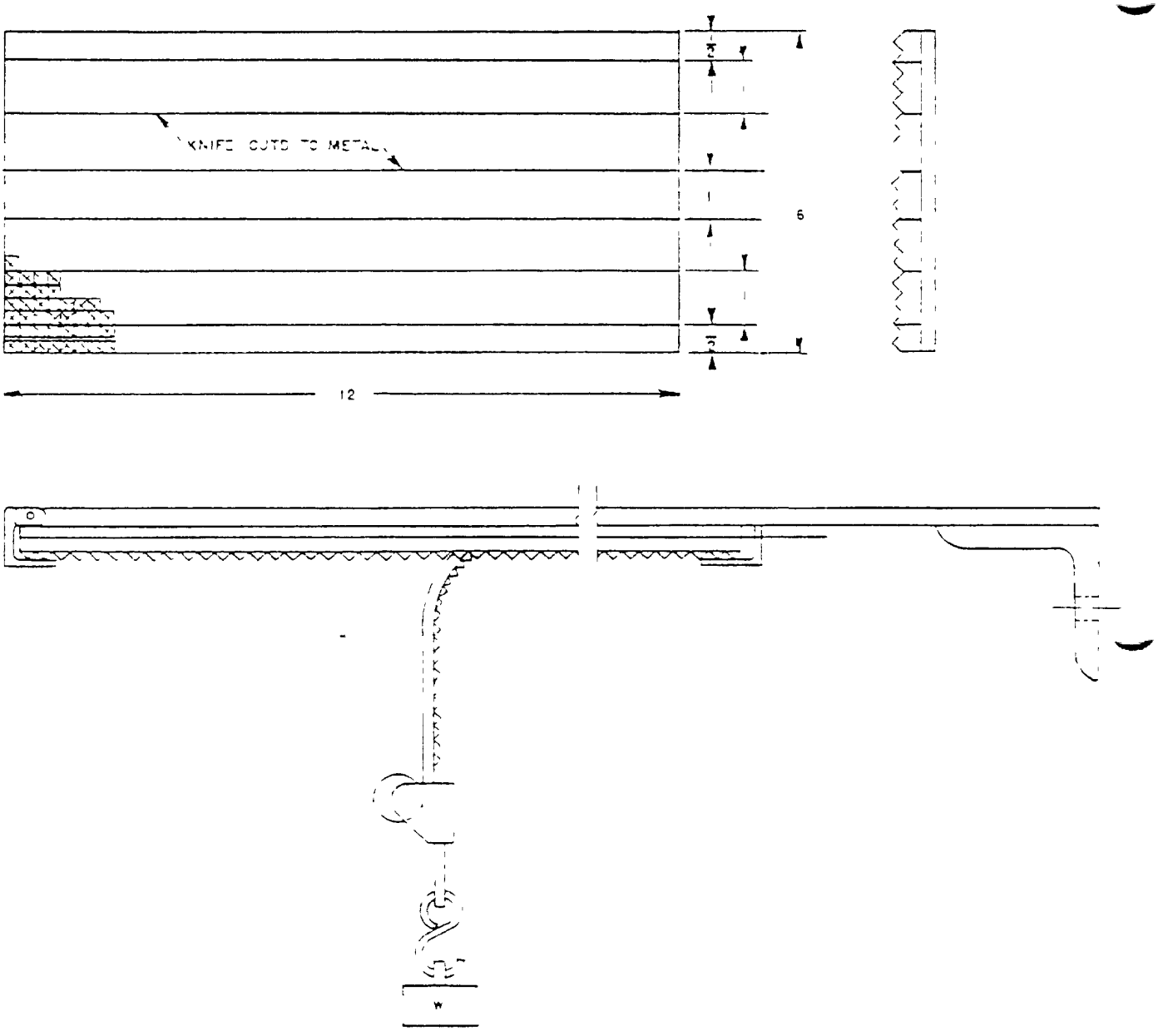
FIGURE 2 Adhesion testing machine



SH 2809

FIGURE 3 Multidisk roller for preparation of strip adhesion strength specimens, assembled view

FIGURE 4. Multiddik roller for preparation of strip adhesion strength
specimens, disassembled view



SH 5876

FIGURE 5 Strip adhesion test

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5 PROBLEM AREAS

a Paragraph Number and Wording

b Recommended Wording

c Reason/Rationale for Recommendation

6 REMARKS

7a NAME OF SUBMITTER *(Last, First, MI)* – Optional	b WORK TELEPHONE NUMBER *(Include Area Code)* – Optional
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