

INCH-POUND

MIL-PRF-32170A

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SUPERSEDING

MIL-PRF-32170

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PERFORMANCE SPECIFICATION DECK TILES, WEAR-RESISTANT

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This specification establishes the requirements for wear-resistant and fatigue reducing deck tile systems (including required adhesives and/or sealers) that are halogen free and require no floor finish used in Naval shipboard interior applications.

1.2 Classification. Coatings covered by this specification are of the following types, as specified (see 6.2):

1.2.1 Type. The types of deck tile systems are as follows:

Type I – Deck tile system for general use.

Type II – Deck tile system for use onboard submarines.

1.2.2 Class. The classes of deck tile systems are as follows:

Class 1 – Wear-resistant deck tile system for areas with moderate to heavy foot or vehicular traffic.

Class 2 – Fatigue reducing deck tile system for areas with light foot traffic only.

2. APPLICABLE DOCUMENTS

2.1 General. The documents listed in this section are specified in sections 3, 4, or 5 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3, 4, or 5 of this specification, whether or not they are listed.

Comments, suggestions, or questions on this document should be addressed to Commander, Naval Sea Systems Command, ATTN: SEA 05Q, 1333 Isaac Hull Avenue, SE, Stop 5160, Washington Navy Yard DC 20376-5160 or emailed to commandstandards@navsea.navy.mil, with the subject line "Document Comment". Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <http://assist.daps.dla.mil>.

MIL-PRF-32170A

2.2 Government documents.

2.2.1 Specifications, standards and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

FEDERAL STANDARDS

FED-STD-141 - Paint, Varnish, Lacquer and Related materials: Methods of Inspection, Sampling and Testing

DEPARTMENT OF DEFENSE STANDARDS

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

(Copies of these documents are available online at <http://assist.daps.dla.mil/quicksearch> or <http://assist.daps.dla.mil> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094.)

2.2.2 Other Government documents, drawings, and publications. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

BUREAU OF MEDICINE AND SURGERY (BUMED)

BUMED INST 6270.8 - Procedures for Obtaining Health Hazard Assessments (HHAs)

(Copies of this document are available online at <https://bumed.med.navy.mil/> or from Bureau of Medicine and Surgery, Department of the Navy, 2300 E Street, NW, Washington, DC 20372-5300.)

NAVAL SEA SYSTEMS COMMAND (NAVSEA)

S9510-AB-ATM-010 - Nuclear Powered Submarine Atmosphere Control Manual, Chapter 7

(Copies of this document are available from Commander, Naval Sea Systems Command, SEA 05Z9, 1333 Isaac Hull Ave., SE, Stop 5122, Washington Navy Yard DC 20376-5122.)

CODE OF FEDERAL REGULATIONS

40 CFR 60, Ch.1, Appendix A, Method 24 - Determination of Volatile Matter Content, Water Content, Density, Volume Solids, and Weight Solids of Surface Coatings
40 CFR 63 - National Emission Standards for Hazardous Air Pollutants for Source Categories
40 CFR 82 - Protection of Environment: Protection of Stratospheric Ozone
40 CFR 261 - Protection of Environment: Identification and Listing of Hazardous Waste

(Copies of these documents are available online at www.gpoaccess.gov/index.html or from the Superintendent of Documents, U.S. Government Printing Office, North Capitol & "H" Streets, N.W., Washington, DC 20402-0002.)

MIL-PRF-32170A

2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

ASTM INTERNATIONAL

- ASTM D 2047 - Standard Test Method for Static Coefficient of Friction of Polish-Coated Flooring Surfaces as Measured by the James Machine
- ASTM D 3389 - Standard Test Method for Coated Fabrics Abrasion Resistance (Rotary Platform, Double-Head Abrader) (DoD adopted)
- ASTM D 4060 - Standard Test Method for Abrasion Resistance of Organic Coatings by the Taber Abraser (DoD adopted)
- ASTM E 260 - Standard Practice for Packed Column Gas Chromatography
- ASTM E 1252 - Standard Practice for General Techniques for Obtaining Infrared Spectra for Qualitative Analysis
- ASTM F 137 - Standard Test Method for Flexibility of Resilient Flooring Materials with Cylindrical Mandrel Apparatus (DoD adopted)
- ASTM F 386 - Standard Test Method for Thickness of Resilient Flooring Materials Having Flat Surfaces (DoD adopted)
- ASTM F 1265 - Standard Test Method for Resistance to Impact for Resilient Floor Tile
- ASTM F 1514 - Standard Test Method for Measuring Heat Stability of Resilient Vinyl Flooring by Color Change
- ASTM F 1515 - Standard Test Method for Measuring Light Stability of Resilient Vinyl Flooring by Color Change
- ASTM F 1914 - Standard Test Method for Short-Term Indentation and Residual Indentation of Resilient Floor Covering
- ASTM F 2055 - Standard Test Method for Size and Squareness of Resilient Floor Tile by Dial Gage Method
- ASTM F 2199 - Standard Test Method for Determining Dimensional Stability of Resilient Floor Tile after Exposure to Heat

(Copies of these documents are available from www.astm.org or ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.)

2.4 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 Qualification. Deck tiles furnished under this specification shall be products that are authorized by the qualifying activity for listing on the applicable qualified products list before contract award (see 4.2 and 6.3).

3.2 Recycled, recovered, or environmentally preferable materials. Recycled, recovered, or environmentally preferable materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs.

3.3 Dimensions and workmanship.

3.3.1 Size. The deck tiles' size shall be as specified (see 6.2). The size of deck tiles shall not vary greater than 1/64-inch per foot (0.4 mm/305 mm).

3.3.2 Thickness. The deck tiles' size shall be as specified (see 6.2). The thickness of deck tiles shall not vary by ± 0.005 in (± 0.13 mm).

MIL-PRF-32170A

3.3.3 Squareness. The out-of-squareness of the tile shall not exceed 0.010 in. (0.25 mm).

3.3.4 Weight.

3.3.4.1 Class 1 products. The deck tiles' weight shall be as specified (see 6.2). The weight of deck tiles shall not vary by ± 2 percent from the specified values. In no case shall the tiles weigh greater than 0.7 pounds per square foot.

3.3.4.2 Class 2 products. The deck tiles' weight shall be as specified (see 6.2). The weight of the deck tiles shall not vary by ± 2 percent from the specified values. In no case shall the tiles weigh greater than 2.7 pounds per square foot.

3.3.5 Workmanship. The deck tiles shall be uniform in quality and condition. They shall be clean, smooth, and free from all foreign materials and defects, including those listed in Table IV.

3.3.6 Dimensional stability. The dimensional stability of the deck tiles shall not vary by greater than 0.020 in/linear foot (0.51 mm/305 mm).

3.4 Fire performance. The fire performance of the deck tile system, including any required adhesive and/or sealer, shall conform to the requirements in MIL-STD-1623.

3.5 Indentation (Class 1 only). The average initial indentation shall not exceed 10 percent, and the initial indentation of any single specimen shall not exceed 12 percent. The average residual indentation at the end of the 60-minute recovery period shall not exceed 8 percent, and the maximum residual indentation of any single specimen shall not exceed 10 percent.

3.6 Flexibility before and after heating. The deck tiles shall not crack, break, or show any indication of weakness when tested before and after heating.

3.7 Wear resistance. The deck tiles shall not show wear characteristics exceeding 30 mg loss.

3.8 Resistance to heat and light. The exposed surface of the deck tile system shall show no appreciable change in color, delamination, or signs of checking, cracking or any other deterioration. The measured change in color shall not exceed 5 ΔE as defined in ASTM F 1514 and ASTM F 1515.

3.9 Slip resistance. The deck tiles shall have slip resistance equal to or greater than 0.50 static coefficient of friction.

3.10 Impact resistance. The deck tile system shall show no visible signs of chipping, cracking, or detachment from the steel plate outside the prescribed zinc oxide circle.

3.11 Resistance to cleaning agents. The deck tile system shall show no blistering or wrinkling and no more than a slight whitening or softening upon removal of the fluid wetted sponges. After 2 hours of air drying, the portion of the panel that was covered by fluid wetted sponges shall be indistinguishable with regard to hardness, color, and gloss from the unexposed areas of the tile system.

3.12 Serviceability. The deck tile system shall show no deficiencies that would limit its serviceability when examined during and after the minimum service period specified in 4.4.10, and shall maintain an acceptable aesthetic appearance with no finish added and a maximum maintenance requirement of periodic wet mopping with water.

3.13 Off-gassing (Type II only). The deck tile system (including required adhesive and/or sealer) shall be tested for off-gassing in accordance with Chapter 7 of NAVSEA Technical Manual S9510-AB-ATM-010, and shall be certified for and assigned a usage category of either "Limited" or "Permitted" (see 4.4.11 and 6.5).

MIL-PRF-32170A

3.14 Toxicity. The deck tile system shall have no adverse effect on the health of personnel when used for its intended purpose and shall not cause any environmental problems during waste disposal (see 4.4.12 and 6.6).

3.15 Disposal. The deck tile system (including required adhesive and/or sealers) shall not contain any hazardous material or exhibit any hazardous characteristic as defined under 40 CFR 261.

3.16 Volatile organic content (VOC) solvent. The VOC of all adhesives and/or sealers specified for use with the deck tiles shall not exceed 250 grams per liter (g/L).

3.17 Hazardous air pollutant (HAP) content. The HAP content of solvents in the adhesive and/or sealer specified by the manufacturer for use with the deck tile system shall not exceed the weight percent (%wt) values listed in Table I. HAP materials are defined by 40 CFR 63.

TABLE I. Hazardous air pollutant solvent content limits.

Hazardous solvent in adhesive or sealer	Maximum, %wt
Benzene	0.05
Chlorinated solvent(s), total	0.05
Solvents containing fluorine as defined by 40 CFR 82	0.01
Ethyl benzene	0.05
Methyl, ethyl and butyl mono-ethers of ethylene glycol or the acetates thereof, total (also known as methyl, ethyl and butyl cello solves and methyl, ethyl and butyl cello solve acetates)	0.05
Methyl ethyl ketone (MEK)	0.05
Methyl isobutyl ketone (MIBK)	0.05
Toluene	0.05
Xylene (all forms), total	0.1

3.18 Halogen content. The deck tiles shall be halogen free.

4. VERIFICATION

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

- a. Qualification inspection (see 4.2).
- b. Conformance inspection (see 4.3).

4.1.1 Inspection conditions. Unless otherwise specified (see 6.2), all inspections shall be performed in accordance with the tests specified in 4.2, 4.3, and 4.4.

4.2 Qualification inspection. Qualification inspection shall consist of the inspections and tests specified in Table II.

4.2.1 Changes to product. Any change in basic ingredients or processes which would affect compliance with this specification must be reported to both the contracting activity and NAVSEA. The Government reserves the right to require that the product be requalified before shipment is made.

MIL-PRF-32170A

TABLE II. Qualification inspection.

Inspections	Requirements	Tests
Dimensions and workmanship	3.3	4.4.1
Fire performance	3.4	4.4.2
Indentation	3.5	4.4.3
Flexibility before and after heating	3.6	4.4.4
Wear resistance	3.7	4.4.5
Resistance to heat and light	3.8	4.4.6
Slip resistance	3.9	4.4.7
Impact resistance	3.10	4.4.8
Resistance to cleaning agents	3.11	4.4.9
Serviceability	3.12	4.4.10
Off-gassing	3.13	4.4.11
Toxicity	3.14	4.4.12
Disposal	3.15	4.4.13
Volatile organic content (VOC) solvent	3.16	4.4.14
Hazardous air pollutant (HAP) content	3.17	4.4.15
Halogen content	3.18	4.4.16

4.3 Conformance inspection.4.3.1 Inspection of end item. Inspections shall be in accordance with Table III.TABLE III. Inspection of end item.

Inspections	Requirements	Tests
Size	3.3.1	4.4.1.1
Thickness	3.3.2	4.4.1.2
Squareness	3.3.3	4.4.1.3
Weight	3.3.4	4.4.1.4
Workmanship	3.3.5	4.4.1.5
Dimensional stability	3.3.6	4.4.1.6

4.3.1.1 Inspection of end item for defects in appearance. Visual inspections shall be in accordance with Table IV and 4.3.3.

TABLE IV. Inspection for visual defects.

Inspection	Defect
Workmanship	Cracking
Workmanship	Scratches
Workmanship	Pits
Workmanship	Embedded foreign matter
Workmanship	Evidence of delamination
Workmanship	Broken edges
Workmanship	Voids
Workmanship	Non-uniform finish

4.3.2 Lot. A lot shall consist of all units of the same type, produced under similar conditions and ready for inspection or shipment at one time. Unless otherwise specified (see 6.2), the lot size shall be expressed in the number boxes of deck tiles.

MIL-PRF-32170A

4.3.3 Sampling for inspection of end item. At a minimum, the contractor shall randomly select samples from each lot as specified in Table V, and inspect them as specified in 4.3.1.

TABLE V. Sampling for inspection of end item.

Lot size	Sample size
1 to 50	5
51 to 90	7
91 to 150	11
151 to 280	13
281 to 500	16
501 and above	19

4.3.4 Noncompliance. If a sample fails to pass its conformance inspections, the lot shall be rejected and the manufacturer shall notify the cognizant inspection activity of such failure and take corrective action on the materials or processes, or both, as warranted. Acceptance and shipment of the product shall be discontinued until corrective action, suitable to the inspection activity, has been taken. After the corrective action has been taken, conformance inspections shall be repeated on the new lot. In the event of failure after re-inspection, information concerning the failure shall be furnished to the cognizant inspection activity.

4.4 Test procedures.

4.4.1 Dimensions and workmanship (see 4.3.3).

4.4.1.1 Size. Each of the tiles in the sample shall be measured for length and width in accordance with ASTM F 2055.

4.4.1.2 Thickness. The thickness of the each tile in the sample selected for testing shall be measured in accordance with ASTM F 386, at a minimum of six points distributed over the area. The average of the six (or more) thickness readings shall be computed and considered to be the thickness of the tile. No individual reading shall vary by greater than 5 percent of the stated thickness.

4.4.1.3 Squareness. The out-of-squareness of the tiles shall be tested in accordance with ASTM F 2055.

4.4.1.4 Weight. The weight of each tile in the sample selected for testing shall be measured to the nearest 0.01 pound and the results averaged. No individual tile weight measurement shall vary by greater than 5 percent (or 0.01 pound, whichever is greater) of the average for the sample.

4.4.1.5 Workmanship. Each tile in the sample selected for testing shall be visually inspected.

4.4.1.6 Dimensional stability. The dimensional stability of the tiles shall be tested in accordance with ASTM F 2199.

4.4.2 Fire performance. The fire performance of the deck tile system, including any required adhesive and/or sealer, shall be tested in accordance with MIL-STD-1623.

4.4.3 Indentation (Class 1 only). Indentation and Residual Indentation testing shall be in accordance with ASTM F 1914. The specimen shall be conditioned for a minimum of 6 hours at a temperature of 75 ± 4 °F (23 ± 2 °C). The indentation and residual indentation testing shall be performed using a total of 140 pounds (63.5 kg) applied to a flat geometry foot for a time of 10 ± 1 minutes, and a recovery of 60 ± 1 minutes. The flat bottom surface of the indentation tip must rest completely on the flat surface of the deck tiles. The test areas must be large enough so that a circle with at least a 3/8-inch (9.525-mm) diameter can be drawn thereon.

MIL-PRF-32170A

4.4.4 Flexibility.

4.4.4.1 Flexibility before heating. The deck tiles shall not crack, break, or show any indication of weakness when tested in accordance with ASTM F 137. Mandrel size shall be 1-inch diameter ± 0.01 -inch (25.4 mm ± 0.025 mm).

4.4.4.2 Flexibility after heating. The deck tiles shall not crack, break, or show any indication of weakness when tested in accordance with method ASTM F 137 after being heated and maintained at a constant temperature of 179.6 ± 3.6 °F (82 ± 2 °C) for $6 \pm 1/4$ hours. Mandrel size shall be 1-inch diameter ± 0.01 inch (25.4 mm ± 0.025 mm).

4.4.5 Wear resistance.

4.4.5.1 Class 1 only. Wear resistance shall be tested in accordance with ASTM D 4060 using a CS 17 wheel, 1000 cycles and a 1 kg load. Samples shall be adhered to steel discs using the adhesive specified by the manufacturer for this deck tile system, and allowed to cure for at least 7 days at room temperature (approximately 77 °F).

4.4.5.2 Class 2 only. Wear resistance shall be tested in accordance with ASTM D 3389. Samples shall be adhered to steel discs using the adhesive specified by the manufacturer for this deck tile system, and allowed to cure for at least 7 days at room temperature (approximately 77 °F).

4.4.6 Resistance to heat and light. The heat and light resistance of the deck tile system shall be tested for 2000 hours in accordance with ASTM F 1514 and ASTM F 1515, respectively.

4.4.7 Slip resistance. The deck tiles shall be tested in accordance with ASTM D 2047.

4.4.8 Impact resistance. Impact resistance shall be tested in accordance with ASTM F 1265.

4.4.9 Resistance to cleaning agents. The deck tile system (including required adhesive and/or sealer) shall be applied to the test panel per manufacturer's instructions. The test panel shall be laid flat and five sponges wet with different shipboard cleaners shall be laid on the panel in a manner to ensure full face contact with the test panel. A list of suitable shipboard cleaners is available from Naval Sea Systems Command, SEA 05M, 1333 Isaac Hull Avenue, Washington Navy Yard DC 20376. The sponges shall be kept wet for a period of 24 hours at ambient laboratory conditions. The sponges shall be covered to restrict evaporation. Upon removal of the sponges, observe the panel for discoloration, change in gloss, glistening, softening, swelling or loss of adhesion.

4.4.10 Serviceability. The deck tiles shall be applied in NAVSEA designated or approved representative areas for the given Class (as defined in 1.2.2.) aboard a U.S. naval vessel for a minimum service period of 6 months.

4.4.11 Off-gassing (Type II only). The deck tile system (including required adhesive and/or sealer) shall be tested in accordance with Chapter 7 of NAVSEA Technical Manual S9510-AB-ATM-010 by a Government approved testing facility. The results shall be submitted to the Government for evaluation and approval for use (see 3.13 and 6.5).

4.4.12 Toxicity. The deck tile system (including required adhesive and/or sealer) shall be evaluated by the Navy Environmental Health Center (NEHC) using the administrative Health Hazard Assessment (HHA). A flowchart for this process can be found as Enclosure (1) of BUMEDINST 6270.8. The HHA is a review of the deck tile system based on information submitted by the manufacturer, to assess health hazards associated with the handling, application, use and removal of the product. Sufficient data to permit a HHA of the product shall be provided by the manufacturer/distributor to the NEHC. To obtain current technical information requirements specified by the NEHC, see 6.6.

4.4.13 Disposal. The manufacturer shall provide written certification that the deck tile system does not contain any hazardous material or exhibit any hazardous characteristics as defined under 40 CFR 261.

MIL-PRF-32170A

4.4.14 Volatile organic content (VOC) solvent. VOC of the adhesives and sealers specified for use with the deck tile system shall be determined in accordance with 40 CFR 60 Ch.1, part 60, Appendix A, Method 24.

4.4.15 Hazardous air pollutant (HAP) content. Hazardous solvent content of each adhesive and sealer specified for use with the deck tiles shall be determined in accordance with ASTM E 260 or Methods 7356 and 7360 of FED-STD-141, as applicable. Solvent fractions shall be identified in accordance with ASTM E 1252 with the results recorded as the percent weight of the total paint. Alternate methods of analysis must be reviewed and approved by NAVSEA. Formulation data may be used by manufacturers in lieu of testing to demonstrate compliance with hazardous air pollutant requirements of this specification. The manufacturer's formulation data must have a consistent and quantitatively known relationship to the testing required. Calculation of individual HAP contents can be based on either manufacturer evaluation of batches or supplier data for raw materials used in the product.

4.4.16 Halogen content. The manufacturer shall provide written certification that the deck tiles are halogen free.

5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of materiel is to be performed by DoD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the Military Service or Defense Agency, or within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of a general or explanatory nature which may be helpful, but is not mandatory.)

6.1 Intended use. Material covered by this document is intended for use as floor covering on U.S. Navy ships where improved wear-resistance is required. The deck tiles are to be applied to the deck, structure, or underlayment using adhesive. During application, the use of clips or other devices welded to the deck or other reinforcement is prohibited. The entire deck system, including underlay if required, is to be sloped to all drains.

6.2 Acquisition requirements. Acquisition documents should specify the following:

- a. Title, number, and date of the specification.
- b. Type and Class (see 1.2).
- c. Tile size, thickness and weight (see 3.3.1, 3.3.2 and 3.3.4).
- d. Inspection conditions (see 4.1.1).
- e. Lot size, if other than specified (see 4.3.2).
- f. Packaging requirements (see 5.1).
- g. Material Safety Data Sheet (MSDS), when required (see 6.4).

6.3 Qualification. With respect to products requiring qualification, awards will be made only for products which are, at the time of award of contract, qualified for inclusion in Qualified Products List QPL No. 32170, whether or not such products have actually been so listed by that date. The attention of the contractors is called to these requirements, and manufacturers are urged to arrange to have the products that they propose to offer to the Federal Government tested for qualification in order that they may be eligible to be awarded contracts or orders for the products covered by this specification. Information pertaining to qualification of products may be obtained from Commander, Naval Sea Systems Command, SEA 05Q, 1333 Isaac Hull Avenue, SE, Stop 5160, Washington Navy Yard DC 20376-5160.

MIL-PRF-32170A

6.4 Material safety data sheets. When required, contracting officers will identify those activities requiring companies of completed Material Safety Data Sheets prepared in accordance with FED-STD-313. In order to obtain the MSDS, FAR clause 52.223-3 must be in the contract.

6.5 Off-gassing. Type II deck tile systems to be installed in submarines are to be controlled to prevent off-gassing, which contaminates the atmosphere and results in health hazards to personnel or deleterious effects on machinery. These controls are accomplished through the Submarine Material Control Program, which is described in Chapter 7 of NAVSEA Technical Manual S9510-AB-ATM-010. Under the Submarine Material Control Program, all materials considered for use on submarines require certification and assignment of a usage category. Under the certification process, candidate materials are selected by Navy activities or contractors, and a request for certification is submitted to Commander, Naval Sea Systems Command, SEA 05Z9, 1333 Isaac Hull Ave., SE, Stop 5122, Washington Navy Yard DC 20376-5122. The certification request is accompanied by detailed information, including descriptions of the material, method of application, usage, and storage. A chemical analysis is conducted, which is normally accomplished through off-gas testing. The off-gas test is required to be conducted in a Government approved laboratory designated by the preparing activity. Information pertaining to this test requirement may be obtained from this same address. Based on the chemical analysis results, a usage category is assigned to the material defining whether, and to what extent, the material may be used on submarines.

6.6 Toxicity evaluation. The NEHC requires sufficient information to permit a HHA of the product. Any questions concerning toxicity, information required to conduct an HHA, and requests for HHAs should be addressed to the Commanding Officer, Navy Environmental Health Center, ATTN: Hazardous Materials Department, Industrial Hygiene Directorate, 620 John Paul Jones Circle, Suite 1100, Portsmouth, VA 20378-2103. Upon receipt of the HHA, a copy should be provided to Commander, Naval Sea Systems Command, SEA 05M1, 1333 Isaac Hull Ave., SE, Stop 5133, Washington Navy Yard DC 20376-5133.

6.7 Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

6.8 Subject term (key word) listing.

Deck tile
Floor covering
Floor tile
Rubber tile

Custodians:
Army - GL
Navy - SH
Air Force - 03
DLA - IS

Preparing activity:
Navy - SH
(Project 7220-2005-001)

Review activities:
Navy - CG
Air Force - 84

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://assist.daps.dla.mil>.