

NAVSEA
STANDARD ITEM

FY-27

ITEM NO: 009-026
DATE: 01 OCT 2023
CATEGORY: II

1. SCOPE:

1.1 Title: Deck Covering; accomplish

2. REFERENCES:

- 2.1 MIL-STD-1623, Fire Performance Requirements and Approved Specifications for Interior Finish Materials and Furnishings (Naval Shipboard Use)
- 2.2 OPNAV 5100.19, Navy Safety and Occupational Health Program Manual for Forces Afloat

3. REQUIREMENTS:

3.1 All deck coverings materials specified herein must conform to the fire performance requirements of 2.1.

3.2 Maintain a current copy of the NAVSEA-reviewed Shipbuilders and Marine Paints and Coatings Product/Procedure Data Sheet (ASTM F718) for the NAVSEA-approved deck covering system specified in the invoking Work Item for reference by the SUPERVISOR. Where the ASTM F718 does not exist for a product, maintain a copy of the manufacturer's technical data sheets.

3.2.1 Submit one legible copy, in approved transferrable media, of specific documents when requested by the SUPERVISOR.

3.2.2 All deck covering materials that are qualified to performance specifications (MIL-PRF) are to be applied in accordance with the manufacturer's NAVSEA-reviewed ASTM F718 product data sheet. The dry film thickness (DFT), temperature, relative humidity, and surface preparation requirements stated herein take precedence over the NAVSEA-reviewed ASTM F718 data sheets if there is a conflict. The NAVSEA-reviewed ASTM F718 data sheets must supersede any other manufacturer's ASTM F718 data sheets for that product, even if it is newer (more recent) than the NAVSEA-reviewed ASTM F718 data sheets. Copies of the NAVSEA-reviewed ASTM F718 data sheets are available from the Naval Surface Treatment Center (NST Center) website: <http://www.nstcenter.biz>.

3.2.3 Comply with the NAVSEA-reviewed ASTM F718s, manufacturer's Safety Data Sheet (SDS) and/or manufacturer's instructions submitted in 3.2 for safety and health precautions during the removal, handling, and application of deck covering products.

3.2.3.1 Ensure that harmful vapors, fumes, and mists are ventilated to the exterior of the vessel.

3.3 Deck covering materials must be stored in a cool, dry place, not exposed to freezing temperatures or direct sunlight, and must be stored in accordance with NAVSEA-reviewed ASTM F718s and/or manufacturer's instructions.

3.4 Accomplish an unobstructed flow test of each deck drain, using clean fresh water prior to the disturbance of existing deck covering. Verify that all deck DC fittings are free, removable, and operational.

3.4.1 If any defects are identified in 3.4, submit one legible copy, in hard copy or approved transferrable media, of a report listing defects found to the SUPERVISOR.

3.4.2 Blank or plug each drain to prevent entry of contaminants.

3.5 Accomplish removal of the existing deck covering in its entirety (including base cove where installed) for locations requiring installation of a complete deck covering system.

3.5.1 Remove unused remnants, clips, brackets, and weldments from decks and vertical surfaces receiving new deck coverings.
removals.

3.5.1.1 Chip and grind each surface flush and smooth in way of each removal.

3.6 Accomplish a visual inspection of each exposed piping penetration, deck drain, deck plating and bulkheads for structural integrity, deterioration, pitting, cracks, and areas of damage or distortion.

3.6.1 If any defects are identified in 3.6, submit one legible copy, in hard copy or approved transferrable media, of a report listing defects identified to the SUPERVISOR.

3.7 Cleaning and painting for each deck surface, including up the adjacent vertical surfaces intersecting the deck up to one inch above the complete deck covering system level must be in accordance with NAVSEA Standard Items (See Note 4.4). For components less than 1 inch from deck covering, the required surface preparation and primer application must be completed up vertical surfaces at the same height that the decking system will be installed.

3.7.1 If solvent is used to clean the deck at any point in the installation process, the deck must be allowed to dry before application of any coating. No visible solvent must be present on deck surfaces prior to proceeding with the next process step.

3.7.2 Where waterproof membranes are to be installed, the required surface preparation and primer application must be completed 5 inches up the adjacent vertical surfaces intersecting the deck. For components less than 5 inches from deck, the required surface preparation and primer application must be completed up vertical surfaces at the same height where waterproof membrane will be installed.

3.7.3 Decks receiving a MIL-PRF-3135 underlayment may also be primed using the primer or bond coat qualified as part of the deck covering system or with a coating conforming to MIL-DTL-24441, Type IV, Formula 150 at 4 to 6 mils or MIL-PRF-23236, Type V, VI, or VII, Class 5 or 7, at 4 to 8 mils DFT. No additional primer coating is required when the qualified bond coat is applied as part of the deck covering system.

3.7.4 Prior to the installation of MIL-PRF-3135, Type III or IV, underlayment, the surface preparation must be an SSPC-SP 3 substrate (i.e. direct-to-substrate without primer).

3.8 Accomplish a visual inspection of the exposed base coat or underlayment surfaces (after removing the top coats in accordance with the applicable Attachment) for a deck covering system repair that requires resurfacing or partial replacement and not a complete installation. (See 4.3)

3.9 Installation of deck coverings.

3.9.1 Install new rings and/or collars around each sounding tube and deck drain. New rings must be CRES Grade 316, 3/8-inch high by 3/16- inch thick and installed 1/4-inch peripherally to sounding tube or deck drain. Seal each ring and/or collar to the deck, using epoxy compound conforming to MIL-PRF-24176.

3.9.2 Install resin-based underlayment conforming to MIL-PRF-3135, Type III or IV, in way of low spots, dish pans, and high points that cannot be ground flush, to provide a smooth and fair surface. Slope and fair as required to ensure positive draining to deck drains where installed. See additional requirements in the applicable Attachment. Underlayment must be installed in accordance with NAVSEA-reviewed ASTM F718s and/or manufacturer's instructions and procedure submitted in 3.2 beneath the following deck covering materials: wear resistant deck tile, chemical- resistant floorings, solid vinyl tile, vinyl composition tile, porcelain tile, and quarry tile.

3.9.2.1 If the deck may cause a tripping hazard or promote premature failure of the deck covering (i.e. not level, high weld seams), a MIL-PRF-3135 underlayment may be installed beneath carpet and electrical sheeting/matting as directed by the SUPERVISOR.

3.9.3 Except where MIL-PRF-3135, Type IV underlayment is used, install a waterproof membrane in each wet space (as defined in Table 2) and in locations adjacent to wet space bulkheads where the coaming to deck joint is not 100 percent seam welded, and any other locations identified in the individual Work Item or as directed by the SUPERVISOR, where there is an increased likelihood of water penetration under the deck covering (e.g., around refrigerated vending machine foundations, AC spot cooler drains, spaces leading to the weather, etc.).

3.9.3.1 The membrane must be in accordance with ANSI A118.10, and be certified by the manufacturer to be compatible with both the underlayment and the installed deck covering. The membrane must be one continuous barrier covering the entire deck, including the cove base 100 mm (4 inches) up each vertical surface. For components less than 4 inches from the deck, cove base is not required. Provide smooth sloped transition from the membrane to the components. Where the surface will be prepared and primed in accordance with 3.7 the membrane must be applied up to vertical surfaces at the same height of cove base where tiles will be installed.

3.9.3.2 The use of a waterproof membrane is not required in areas where MIL-PRF-32584, Types II or III products are used as specified in Table 2.

(I) "VISUAL INSPECTION"

3.9.3.3 Accomplish a visual inspection of the completely installed and cured waterproof membrane. The membrane must have a smooth, continuous surface that is free of air bubbles that penetrates any layer of the deck covering system. No embedded contaminants such as dust or fibers must be visible on the deck at 45 degrees to the surface when viewed using the as-installed ambient lighting source from a standing position.

3.9.4 Where the prevention of condensation on certain decks, e.g. above ballast tanks, or to reduce heat flow to decks located over hot machinery spaces, especially where these decks form the deck tops of living spaces, insulating deck covering material must be installed where designated by the SUPERVISOR. Install insulating deck covering material conforming to MIL-PRF-3135 Type III to a thickness of ½ to ¾ inch.

3.9.5 Accomplish the requirements of Attachment A for the installation of new unglazed porcelain tile deck covering system, using the NAVSEA-reviewed ASTM F718 and/or the manufacturer's instructions.

3.9.6 Accomplish the requirements of Attachment B for the installation of new wear resistant deck tile covering system, using the NAVSEA-reviewed ASTM F718 and/or the manufacturer's instructions.

3.9.7 Accomplish the requirements of Attachment C for the installation of new, or the resurface of existing, chemical-resistant flooring systems, using the NAVSEA-reviewed ASTM F718 and/or the manufacturer's instructions.

3.9.8 Accomplish the requirements of Attachment D for the installation of new electrical grade sheeting and matting deck covering system, using the NAVSEA-reviewed ASTM F718 and/or the manufacturer's instructions.

3.9.8.1 Electrical grade sheeting is a continuous deck covering acting as the primary deck covering system across the entire deck of a space.

3.9.8.2 Electrical grade matting is installed over the primary deck covering system in localized areas in way of electrical hazards.

3.9.9 Accomplish the requirements of Attachment E for the installation of new carpeting deck covering system, using the NAVSEA-reviewed ASTM F718 and/or the manufacturer's instructions.

3.9.10 Accomplish the requirements of Attachment F for the installation of new vinyl composition and solid vinyl tile deck covering systems, using the NAVSEA-reviewed ASTM F718 and/or the manufacturer's instructions.

3.9.11 Accomplish the installation of new light-weight concrete deck covering system, using the NAVSEA-reviewed ASTM F718 and/or the manufacturer's instructions.

3.9.12 Accomplishment of cleaning and painting for each MIL-PRF- 32584, Types I, II or III high durability deck coating and MIL-PRF-24667 nonskid applications must be in accordance with NAVSEA Standard Items (See Note 4.4).

3.9.12.1 Accomplish the requirements of Attachment G for the installation of new or replacement of MIL-PRF-24667, Type XI nonskid, using the NAVSEA-reviewed ASTM F718 and/or the manufacturer's instructions.

3.9.13 MIL-DTL-15562 matting is required in areas where specific electrical hazards may exist in non-designated electrical spaces as designated by the SUPERVISOR.

3.9.14 Newly installed deck covering systems must be allowed to stabilize at room temperature for 24 hours prior to foot traffic and must not be washed for 48 hours.

(I)(G) "VISUAL INSPECTION"

3.9.15 Accomplish a visual inspection of the completely installed and cured deck covering system. Ensure that each deck covering system is in accordance with Tables One and 2, and is uniform and free of defects. Deck coverings with a sealer coat installed must have a continuous surface, free of blotchy areas, pooling, ridge marks or runs, with only negligible embedded surface contaminants. Air bubbles in the seal coat are acceptable; however, they must not penetrate any other layers of the deck covering system. Imperfections that may cause premature failure or do not meet the above requirements must be corrected before the surfaces are accepted.

(I) "UNOBSTRUCTED FLOW TEST AND POSITIVE DRAINING INSPECTION"

3.9.15.1 Remove each blank and plug installed in 3.4.2 and accomplish an unobstructed flow test of each deck drain (where installed), using clean, fresh water. No obstruction allowed. For wet space decks, accomplish a positive draining inspection, using a sufficient amount of clean, fresh water throughout each deck surface to ensure that new deck covering system slopes to the drains. Water must flow to drains and not stand or puddle.

3.9.15.2 Upon completion of deck covering installation, verify all deck DC fittings are free, removable, and operational. Ensure deck drain covers, remote operating gear deck box covers, and other DC fittings have not been sealed over during the installation of sealer coats and/or deck covering installation are removable and operational.

4. NOTES:

4.1 Table One provides the deck covering systems for dry interior spaces. Table 2 provides the deck covering systems for wet interior spaces. Wet interior spaces are defined as interior compartments that are exposed to wet conditions or potential immersion resulting from equipment in space, exposure to weather, or other service conditions of the space. Column A lists the approved

decking materials for each group of spaces. Column B lists where electrical grade sheeting or matting, MIL-DTL-15562, must be used for non-designated electrical spaces where electrical hazards may exist in accordance with 3.9.13. Column C lists where nonskid must be used in working areas around machinery and walking areas in accordance with 3.9.12.

4.2 The SUPERVISOR will select type, color, and pattern of deck coverings (with input from Ship's Force (or custodian for boat or craft), when possible), using all available samples supplied by the manufacturer.

4.3 The exact location of work will be indicated in the invoking Work Item, including the type (and grade or class) of deck covering, the location (space name and number and if entire space, within the coaming, not under furniture, etc.) and the required Table, Line, and Column from 009-32 of NAVSEA Standard Items for surface preparation. Locations that are to retain underlayment or base coats must also be indicated as such in the invoking Work Item (e.g., replacing deck covering down to existing underlayment or base coats, replacing deck covering systems down to bare substrate or partial replacement of existing deck covering system).

4.4 If cleaning and painting of 3.7 or 3.9.12 is required; the use of Category II Standard Item 009-32 "Cleaning and Painting Requirements; accomplish" of NAVSEA Standard Items will be specified in the Work Item.

ATTACHMENT A

CERAMIC TILE (QUARRY AND PORCELAIN)

1. Ceramic tile includes both porcelain and quarry tiles and must be installed in locations listed in Table 2.

A. Ceramic tile must meet the requirements of ANSI A137.1 (available from the Tile Council of North America) and be unglazed, with a minimum coefficient of friction (COF) of 0.7 dry and 0.6 wet when tested in accordance with ASTM C1028.

B. Adhesive and grout must both be epoxy, chemical resistant, and water cleanable, in accordance with ANSI A118.3.

C. The underlayment must be in accordance with 3.9.

D. Concrete.

(1) Fabricate and install box units around hard to reach areas, i.e., vent ducting, stuffing tubes, and pipe brackets.

(2) Apply concrete by pouring into boxed area to produce slope towards deck drains and to provide vertical surfaces and square corners that suit application of cove tiles.

(3) Remove box units after concrete is cured.

E. Adhesive (mortar) and tile.

(1) Apply an ANSI A118.3 epoxy adhesive to the deck and on vertical surfaces up 4 inches from the deck.

(2) Ceramic cove base and bull nose top pieces must be used on the vertical portions of the tile system.

(3) The tiles must be stored flat.

(4) The application and installation of adhesive and tile may have to be accomplished in sections if the area is so large as to prevent laying tiles within adhesive pot-life.

(5) Periodically lift a set tile and inspect to ensure that 100 percent contact between adhesive and tile is achieved and that there is no entrapped air in the adhesive.

(6) Tiles, adhesive and deck must be allowed to stabilize to a temperature as close as practicable to room temperature, but in all cases between 64 degrees Fahrenheit and 81 degrees Fahrenheit for a period of 24 hours before, during, and after installation.

(7) The deck should be protected from traffic for 24 hours after installation and must not be washed for 48 hours following installation.

F. Grout.

(1) Mix and apply an ANSI, A118.3 epoxy grout by working it into tile seams to ensure air pockets are eliminated.

(2) Clean epoxy grout residue from the surface of the tile.

(3) Protect tile from foot traffic for a minimum of 24 hours.

G. Deck drain sealant installation. In the area between the tile, adhesive, and collar joint, install a waterproof sealant conforming to SAE-AMS-S-8802, Class B; MIL-A-46106, Group I, Type I; 3M 5200 Fastcure Marine Sealant; or NAVSEA-approved equivalent, around the entire circumference of the deck drain to the tile and adhesive interface.

ATTACHMENT B

WEAR RESISTANT DECK TILE

1. Wear resistant deck tiles must be installed in locations listed in Table One.

A. The wear resistant deck tile materials must be qualified under MIL-PRF-32170.

B. The adhesive must be as recommended by the manufacturer. For adhesive application, the substrate temperature must be between 64 degrees Fahrenheit and 81 degrees Fahrenheit, with a maximum relative humidity of 75 percent. The temperature and relative humidity must be stabilized for 24 hours prior to installation and for 24 hours following the installation.

C. Tile:

(1) Tiles, adhesive and sub-floor should be allowed to stabilize to a temperature as close as practicable to room temperature, but in all cases must be between 64 degrees Fahrenheit and 81 degrees Fahrenheit for a period of 24 hours before, during and after tile installation.

(2) The tiles must be stored flat.

(3) The deck should be protected from traffic for 24 hours after tile installation and must not be washed for 48 hours following installation.

(4) Do not spring wear resistant deck tiles into position. Tiles requiring hand cutting must not be cut oversize and then sprung (forced) into position. The tile must be cut such that they fit neatly into position without a gap between them and not requiring bending or application by force. Tiles can be taped together with masking tape to pull joints together during curing of the adhesive.

(5) The deck should be rolled initially by hand with a vinyl seam roller. Two to 4 hours after application of the adhesive, but prior to adhesive setting, the tiled surface should be rolled with a 100 lb. floor tile roller to ensure a good bond between the tiles, adhesive, and sub-floor.

(6) Clean away excess adhesive before it is allowed to dry. For water based adhesive use a soft cloth moistened with denatured alcohol. Do not use mineral spirits, which will cause swelling and have a tendency to curl.

D. Seal all edges of the tile including penetrations for pipes, foundations, vents, and other structures with a waterproof sealant conforming to SAE-AMS-S-8802, Class B; MIL-A-46106, Group I, Type I; 3M 5200 Fastcure Marine Sealant; or NAVSEA-approved equivalent.

ATTACHMENT C

CHEMICAL-RESISTANT FLOORINGS

1. Chemical-resistant floorings must be installed in locations listed in Tables One and 2.

A. The chemical-resistant flooring materials must be qualified under MIL-PRF-32584, Types IV or V, and listed on the QPL.

B. If aggregate is required to meet the coefficient of friction (COF) requirements of MIL-PRF-32584, an aggregate (e.g., white aluminum oxide or glass beads) must be included in the final seal coat to provide slip resistance.

C. The materials must be stored at a temperature between 60 degrees Fahrenheit and 80 degrees Fahrenheit for best application properties.

D. Maintain deck surface and room temperature in accordance with the NAVSEA-reviewed manufacturer's instructions and procedures submitted in 3.2 for proper curing during application and for at least 24 hours after installation.

E. For complete replacement of color-flake deck coverings, apply base coat, color coat, color chips and sealer coat (as applicable for the specified Class) in accordance with NAVSEA-reviewed ASTM F-718s and/or manufacturer's instructions submitted in 3.2. Color chips must be applied to the color coat in an even distribution. The color chip area to total color coat area ratio must be installed in accordance with the color-flake percentage as specified on the QPL. When multiple sealer coats are required, lightly abrade each sealer coat and solvent wipe the abraded surface before applying the next coat.

F. For resealing of color-flake deck coverings, abrade the existing sealer coat. Apply new color chips to maintain the chip coverage of the color coat. Apply sealer coat in accordance with NAVSEA-reviewed ASTM F-718s and/or manufacturer's instructions. Repair localized areas of torn, punctured or defective base coat to achieve a consistent appearance. When multiple sealer coats are required, lightly abrade each sealer coat and solvent wipe the abraded surface before applying the next coat.

ATTACHMENT D

ELECTRICAL GRADE SHEETING AND MATTING

1. Electrical grade sheeting and matting must be installed in locations listed in Table One.

A. The electrical grade sheeting and matting materials must be qualified under MIL-DTL-15562.

B. The electrical grade sheeting adhesive must be installed over the entire deck in accordance with manufacturer's instructions.

C. Heat welded electrical seams must provide a continuous surface to prevent a path for grounding. Where seams are inaccessible they must be sealed with a waterproof sealant conforming to SAE-AMS-S-8802, Class B; MIL-A-46106, Group I, Type I; 3M 5200 Fastcure Marine Sealant; or NAVSEA-approved equivalent. Electrical matting seams must not be within 914 mm (3 ft) of electrical/electronic equipment, panels, and workbenches. If this is unavoidable, heat-weld the seams to provide a continuous surface free of seams, craters, or porosities.

D. Seal all edges of the electrical sheet including penetrations for pipes, foundations, vents, and other structures with a waterproof sealant conforming to SAE-AMS-S-8802, Class B; MIL-A-46106, Group I, Type I; 3M 5200 Fastcure Marine Sealant; or NAVSEA-approved equivalent.

2. Exposed corners of electrical grade matting must be rounded off.

A. Installation of the mat with adhesive is optional, but if the mat is installed without adhesive, an outline of the area covered by the mat must be stenciled on the deck. Inside the outlined area the following must be stenciled in 20 mm (0.8 inch) or larger letters: "ELECTRICAL GRADE MAT REQUIRED WITHIN MARKED LINES".

B. Over removable deck plates, the mats must be installed without adhesive and marked as detailed above. Seams must be backed with 20 mil thick polyvinyl chloride tape, with a high-tack adhesive, 7 kN/m (40 lb/in) breaking strength, a dielectric strength of 20,000 volts in accordance with ASTM D1000, and with a 50 mm (2-inch) minimum overlap under each side of the seam.

ATTACHMENT E

CARPETING

1. Carpeting must be installed in locations listed in Table One.

A. Carpets must cover the deck completely, but must be fitted around all permanently installed furniture.

B. Carpets must be installed without pad over underlayment, primed steel or aluminum deck by a tackless procedure, or with an adhesive as recommended by the carpet manufacturer. For DDG 51-Class ships, acoustic insulation is authorized for use under carpeting in CO and XO cabins.

C. A clean, bright CRES or aluminum transition strip must be installed to secure the edges of the carpet in foot traffic areas where the carpet abuts other deck covering.

ATTACHMENT F

SOLID VINYL AND VINYL COMPOSITION TILE

1. Solid vinyl and vinyl composition tile must be installed in locations listed in Table One.

A. Vinyl composition deck tiles must conform to ASTM F1066, Class 2, and must be 1/8-inch thick for maximum durability. Solid vinyl tile must conform to ASTM F1700, Class III (commercial), Type B.

B. Vinyl tile epoxy adhesive must be a qualified proprietary part of the new deck covering system applied in accordance with NAVSEA-reviewed manufacturer's instructions and procedures submitted in 3.2.

C. Installations must be bulkhead to bulkhead and squared off on adjacent stiffeners and stanchions. Where the exposed edge fails to butt up against a fitting or bulkhead, a vinyl beveled edge strip or a stainless/brass strip (one inch by 0.08 inch) must be installed (with epoxy adhesive) to the deck to protect the edge.

D. Seal all edges of the tile including penetrations for pipes, foundations, vents, and other structures with a waterproof sealant conforming to SAE-AMS-8802, Class B; MIL-A-46106, Group I, Type I; 3M 5200 Fastcure Marine Sealant; or NAVSEA-approved equivalent.

ATTACHMENT G

MIL-PRF-24667, Type XI NONSKID (PEEL AND STICK)

1. MIL-PRF-24667, Type XI nonskid must be installed in locations listed in Tables One and 2 and listed within 2.3. Exterior applications for MIL-PRF-24667, Type XI nonskid are located in Table 2 of 009-32 of 2.1.

A. The MIL-PRF-24667, Type XI nonskid materials must be qualified under MIL-PRF-24667, Type XI, Comp PS.

B. Spaces between adjacent pieces must have a minimum gap of 1/2 inch and maximum gap up to 1-1/2 inches. This spacing should align with weld seams to the maximum extent practicable so as to avoid the material from bridging these seams.

C. For exterior applications only, seal all free edges of the MIL-PRF- 24667, Type XI nonskid with the manufacturer's approved sealer.

Verify that the sealer bead covers both the edge of the product and the substrate surface. The edge sealer must be dry to the touch in accordance with ASTM D1640 prior to permitting foot traffic.

D. MIL-PRF-24667, Type XI nonskid must not be used in areas frequently contaminated with hydrocarbons (e.g. hydraulic fluid, fuel, oil) as well as pallet jack, and fork truck traffic areas.

E. Corners of MIL-PRF-24667, Type XI nonskid must be rounded.

2. If approved by the SUPERVISOR, existing areas of MIL-PRF-24667, Type XI nonskid can be repaired by removing worn or damaged areas. Product removal must be accomplished in accordance with the manufacturer's instructions.

3. Surfaces must be prepared to a minimum surface preparation level of SSPC- SP 11 and be painted prior to application of the MIL-PRF-24667, Type XI nonskid.

A. If approved by the SUPERVISOR, for areas where the paint is intact, surface preparation and painting is not required. The surface must be cleaned of all loose debris and be detergent washed or solvent wiped to remove all surface contaminants. Any existing areas of paint damage must be touched up.

4. MIL-PRF-24667, Type XI nonskid must be installed in accordance with manufacturer's documentation.

5. Color topping is authorized as required for safety markings.

NOTES OF TABLES ONE AND 2 FOR SURFACE SHIPS

- (1) High durability deck coating, MIL-PRF-32584, Types I and II, have significantly lower total ownership costs than all other decking materials.
- (2) Chemical-resistant flooring, MIL-PRF-32584, materials qualified to Type V do not require an underlayment to create a coaming or slope to a drain and therefore have a lower total ownership cost than Type IV materials which require an underlayment.
- (3) When no products are listed on wear resistant deck tiles, MIL-PRF-32170, Class 1, qualified products database (QPD), solid vinyl tile in accordance with Attachment F may be substituted.
- (4) Listed spaces may be designated as an electrical space, requiring electrical grade sheeting, MIL-DTL-15562. (For example: If the pilot house is designated an electrical space, the entire floor will require MIL-DTL-15562 sheeting.)
- (5) If MIL-DTL-15562, Type I, electrical grade sheeting is not installed in designated electrical spaces, then localized installation of MIL-DTL- 15562, Type II or III matting is required in areas where specific electrical hazards may exist in accordance with 3.9.13.
- (6) Install MIL-PRF-24667, Type XI nonskid in working areas around machinery.
- (7) INTENTIONALLY LEFT BLANK
- (8) Two-inch square, three-inch square, or four-inch square tiles must be used.
- (9) Quarry tile must be 0.5-inch by six-inch by six-inch.
- (10) Four-inch square, six-inch square, or eight-inch square tiles must be used.
- (11) If no products are listed on QPL-32584, utilize the legacy QPLs as listed below,
 - a. MIL-PRF-32584, Type I: MIL-PRF-32171, Type I
 - b. MIL-PRF-32584, Type II: MIL-PRF-32171, Type III
 - c. MIL-PRF-32584, Type III: MIL-PRF-32171, Type IV
 - d. MIL-PRF-32584, Type IV: MIL-PRF-24613, Types I, II, III, or IV
 - e. MIL-PRF-32584, Type V: MIL-PRF-24613, Types V or VI
 - f. MIL-PRF-32584, Type VI: MIL-D-21631
- (12) Do not topcoat latex concrete installed in magazines and ammunition holds. For magazine areas without latex concrete, paint steel decks with the epoxy system of surrounding decks. Large magazine areas receive nonskid in accordance with MIL-PRF-24667 as directed by the SUPERVISOR. Small magazines areas are topcoated with haze gray #26270 MIL-PRF-24635 Type V/VI paint, with the

exception of saluting charge and OTTO fuel magazines which are painted white, MIL-DTL-24441, Type IV, Formula 152.

TABLE ONE DRY INTERIOR SPACES	LINE	A PRIMARY DECK COVERING	B ELECTRICAL GRADE SHEETING OR MATTING	C NONSKID, MIL- PRF- 24667, TYPE XI
LIVING AND WORKING SPACES (E.G. OFFICES AND BERTHING), MAIN PASSAGEWAYS, MESSING AREAS, BARBER SHOP, MANNED STOREROOMS AND SHIP'S STORE SEE NOTE (1)	1	CHEMICAL- RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)	ELECTRICAL GRADE SHEETING OR MATTING, MIL-DTL-15562, TYPE I, II OR III SEE NOTES (4) & (5)	
	2	HIGH DURABILITY DECK COATING, MIL- PRF- 32584, TYPE I	SAME AS LINE ONE	
	3	WEAR RESISTANT DECK TILE, MIL-PRF-32170, CLASS 1 - OR -SOLID VINYL OR VINYL COMPOSITION TILE SEE NOTE (3)	SAME AS LINE ONE	
PILOT HOUSE AND CONTROL STATIONS, CHART ROOM AND COMBAT INFORMATION CENTER SEE NOTE (1)	4	CHEMICAL RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)	SAME AS LINE ONE	
	5	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I	SAME AS LINE ONE	

TABLE ONE DRY INTERIOR SPACES	LINE	A PRIMARY DECK COVERING	B ELECTRICAL GRADE SHEETING OR MATTING	C NONSKID, MIL- PRF- 24667, TYPE XI
	6	WEAR RESISTANT DECK TILE, MIL-PRF-32170, CLASS 1- OR -SOLID VINYL OR VINYL COMPOSITION TILE SEE NOTE (3)	SAME AS LINE ONE	
FLAG QUARTERS, CO AND XO QUARTERS, TROOP CO QUARTERS SEE NOTE (1)	7	CARPET		
	8	HIGH DURABILITY DECK COATING, MIL- PRF- 32584, TYPE I		
	9	CHEMICAL- RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)		
	10	WEAR RESISTANT DECK TILE, MIL-PRF-32170, CLASS 1 - OR - SOLID VINYL OR VINYL COMPOSITION TILE SEE NOTE (3)		
WARDROOM, CPO LOUNGE, LIBRARY, CLASSROOM AND CHAPEL SEE NOTE (1)	11	CHEMICAL RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)		

TABLE ONE DRY INTERIOR SPACES	LINE	A PRIMARY DECK COVERING	B ELECTRICAL GRADE SHEETING OR MATTING	C NONSKID, MIL- PRF- 24667, TYPE XI
	12	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I		
	13	WEAR RESISTANT DECK TILE, MIL-PRF-32170, CLASS 1- OR -SOLID VINYL OR VINYL COMPOSITION TILE SEE NOTE (3)		
MEDICAL AND DENTAL SPACES SEE NOTE (1)	14	CHEMICAL- RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTES (2)		
	15	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I		
LABORATORY SPACES, DESIGNATED ELECTRICAL SPACES (E.G. CCTV CONTROL ROOMS, ELECTRIC POWER CONVERSIONS, IC AND GYRO ROOMS, RADAR ROOMS, AND CONTROL ROOMS), AND ELECTRICAL/ELECTRONI C WORKSHOPS SEE NOTE (1)	16	ELECTRICAL GRADE SHEETING, MIL-DTL-15562, TYPE I SEE NOTE (5)		
	17	HIGH DURABILITY DECK COATING, MIL-PRF- 32584, TYPE I	SAME AS LINE ONE	

TABLE ONE DRY INTERIOR SPACES	LINE	A PRIMARY DECK COVERING	B ELECTRICAL GRADE SHEETING OR MATTING	C NONSKID, MIL- PRF- 24667, TYPE XI
	18	CHEMICAL- RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)	SAME AS LINE ONE	
CARPENTER AND MACHINE SHOPS AND OTHER SHOP SPACES	19	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I	SAME AS LINE ONE	NONSKID, MIL-PRF-24667, TYPE XI, COMP PS SEE NOTE (6)
SIDE PASSAGEWAYS (INTERIOR) ONLY SERVING SHOP SPACES (NOT MAIN PASSAGEWAYS)	20	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I		
CARGO AMMUNITION HOLDS (BETWEEN DUNNAGE TRACKS)	21	LATEX CONCRETE, MIL-PRF-32584, TYPE VI SEE NOTE (11) & (12)		
MACHINERY SPACES (EXCLUDING BILGES) IN WORKING AREAS	22	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I	SAME AS LINE ONE	SAME AS LINE 19
DRY GOODS STOREROOMS	23	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I		

TABLE ONE DRY INTERIOR SPACES	LINE	A PRIMARY DECK COVERING	B ELECTRICAL GRADE SHEETING OR MATTING	C NONSKID, MIL- PRF- 24667, TYPE XI
AIR LOCKS AND LIGHT TRAPS	24	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I		
OTHER INTERIOR SPACES	25	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE I	SAME AS LINE ONE	SAME AS LINE 19

TABLE 2 WET INTERIOR SPACES	LINE	A PRIMARY DECK COVERING	B ELECTRICAL GRADE SHEETING OR MATTING	C NONSKID, MIL-PRF- 24667, TYPE XI
SANITARY SPACES (WASHROOMS, WATER CLOSETS, AND SHOWERS) SEE NOTE (1)	1	PORCELAIN TILE SEE NOTE (8)		
	2	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE II		
	3	CHEMICAL-RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)		
SMALL ENCLOSED SPACES ADJOINING SANITARY SPACES (HOT WATER HEATER SPACES, CG LOCKER, ETC.) SEE NOTE (1)	4	CHEMICAL-RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)		
	5	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE II		
FOOD SERVICE SPACES (GALLEY, SCULLERY, BUTCHER SHOP, BAKERY, MEAT PREPARATION ROOMS, FOOD SERVICE LINES) SEE NOTE (1)	6	QUARRY TILE SEE NOTE (9)		
	7	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE II		
	8	PORCELAIN TILE SEE NOTE (8)		

TABLE 2 WET INTERIOR SPACES	LINE	A PRIMARY DECK COVERING	B ELECTRICAL GRADE SHEETING OR MATTING	C NONSKID, MIL-PRF- 24667, TYPE XI
TRASH COMPACTOR ROOMS SEE NOTE (1)	9	CHEMICAL RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)		NONSKID, MIL-PRF-24667, TYPE XI, COMP PS SEE NOTE (6)
TRASH COMPACTOR ROOMS SEE NOTE (1)	10	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE II		SAME AS LINE 9
	11	QUARRY TILE SEE NOTE (9)		SAME AS LINE 9
WALKING AREAS OF OTHER WET WORKING SPACES (NIXIE ROOMS, ETC.)	12	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE II		SAME AS LINE 9
LAUNDRY FACILITIES SEE NOTE (1)	13	CHEMICAL RESISTANT FLOORING, MIL-PRF-32584, TYPES IV OR V SEE NOTE (2)		SAME AS LINE 9
	14	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE II		SAME AS LINE 9
	15	PORCELAIN TILE SEE NOTE (10)		SAME AS LINE 9
AFFF STATIONS	16	AFFF STATION DECK COATING, MIL-PRF- 32584, TYPE III		

TABLE 2 WET INTERIOR SPACES	LINE	A PRIMARY DECK COVERING	B ELECTRICAL GRADE SHEETING OR MATTING	C NONSKID, MIL-PRF- 24667, TYPE XI
OTHER MANNED SPACES	17	HIGH DURABILITY DECK COATING, MIL-PRF-32584, TYPE II		SAME AS LINE 9
OTHER UNMANNED SPACES	18	HIGH DURABILITY DECK COATING, MIL- PRF-32584, TYPE II		