

METRIC

MIL-PRF-24712A
AMENDMENT 1
19 March 1997

PERFORMANCE SPECIFICATION

COATINGS, POWDER (METRIC)

This amendment forms a part of MIL-PRF-24712A, dated 25 May 1995, and is approved for use by all Departments and Agencies of the Department of Defense.

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2.1.1, under "SPECIFICATIONS": Delete:

- "L-P-378 - Plastic, Sheet and Strip, Thin Gauge, Polyolefin.
- PPP-B-636 - Boxes, Shipping, Fiberboard.
- PPP-F-320 - Fiberboard: Corrugated and Solid, Sheet Stock (Container Grade), and Cut Shapes.
- MIL-L-19140 - Lumber and Plywood, Fire-Retardant Treated.
- MIL-STD-2073-1 - DoD Material Procedures for Development and Application of Packaging Requirements."

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2.2, under "AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)":
Delete:

- "D 3951 - Standard Practice for Commercial Packaging. (DoD adopted)
- E 162 - Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source. (DoD adopted)"

2.2: Delete:

- "UNITED NATIONS (UN)
UN - Performance Oriented Packaging.

(Application for copies should be addressed to: Labelmaster, 5724 North Pulaski Road, Chicago, IL 60646.)"

AMSC N/A

FSC 8010

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3.2.3, (c), line 3: Delete "0.06" and substitute "0.10".

3.2.3, second paragraph, line 2: Delete "0.06" and substitute "0.10".

3.2.3, second paragraph, line 4: Delete "...lead, chromium,..." and substitute: "...lead (0.06 percent for lead), chromium,...".

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3.2.3.1: Delete the last sentence in its entirety.

3.2.4: Last line: Delete "(see 5.5 and 6.5)" and substitute "(see 6.5 and 6.10.5)".

3.2.4: 3rd line, Add after "...of FED-STD-313.", Add: "The manufacturer shall incorporate all recommendations from the Navy Environmental Health Center (NAVENVIRHLTHCEN) findings into the MSDS sheets."

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3.25: Last line: Delete "(see 5.4.1.1)" and substitute "(see 3.26 and 6.10)".

Add as new paragraphs:

"3.26 Special marking.

3.26.1 Precautionary marking. Precautionary markings shall include statements that material is free of all prohibited materials (see 3.2.1 and 3.2.3), disposal guidance for all waste powder and removed coatings, and shelf life (see 3.22) marking as follows:

"DO NOT STORE AT TEMPERATURES ABOVE 27°C
(80°F) AND RELATIVE HUMIDITY ABOVE 50%"

3.26.2 Colors of labels. The major bold lettering on all labels which shall be brown on a white background for class 1, and green on a white background for class 2, except for exterior coatings labels which shall be purple on a white background for class 3.

Add as new paragraph:

"3.27 Nonflaming property (Class I only) when tested as specified in 4.12, the powder coating shall be resistant to burning, show no flaming or dripping, and have a maximum average flame spread index of 20 with no individual specimen having a flame spread index over 25."

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4.11 Inspection of packaging., last line: Delete "and the documents specified therein" and substitute "(see 3.26 and 6.10)."

Add as new paragraph:

"4.12 Nonflaming property (for Class I only) with three panels shall be prepared and coated as specified in 4.6. The test specimen shall show no flaming or dripping and have a maximum average flame spread index of 20 with no individual specimen having a flame spread index over 25 when tested in triplicate. The panels shall be tested in accordance with ASTM E 162. Test results shall be examined for compliance with the requirements as specified in 3.27."

Delete section 5 in its entirety and substitute:

"5. PACKAGING

5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's Systems Command. 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."

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6.2 Acquisition requirements: Delete items (o), (p), (q), (r), (s), (t), (u) and (v) and substitute:

- "(o) Packaging requirements (see 5.1 and 6.10).
- (p) If formulation and toxicity information are required for NEHC review (see 3.2.3.1, 4.9 and 6.10.6).
- (q) If material safety data sheets are required (see 3.2.4 and 6.11).
- (r) If a copy of the NEHC findings should be attached to the shipping documents for each destination and a certificate of compliance provided with each lot."

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6.8: Modify the table under "Container size":

Delete: "A 50 pounds
B 100 pounds
C 150 pounds"

and substitute: "A 50 pounds
B 100 pounds
C 200 pounds
D 250 pounds"

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Add as new paragraphs:

"6.10 Suggested packaging.

(The packaging requirements specified herein are suggested and apply only for direct Government acquisition.)

6.10.1 General.

6.10.1.1 Performance oriented packaging (POP). In addition to the packaging requirements specified herein, and unless otherwise specified, packaging should comply with the United Nations POP criteria as detailed in performance oriented packaging documents.

6.10.1.2 Navy fire-retardant requirements.

(a) Treated lumber and plywood. Unless otherwise specified, all lumber and plywood including laminated veneer materials used in shipping container and pallet construction, members, blocking, bracing, and reinforcing should 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. Fiberboard used in the construction of interior (unit and intermediate) and exterior containers including interior packaging forms should conform to the class-domestic/fire retardant or class-weather resistant/fire-retardant materials requirement as specified, of PPP-F-320.

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6.10.2 Preservation. Preservation should be level A, C, or commercial as specified.

6.10.2.1 Unit pack quantity. Unless otherwise specified, the powdered coating should be furnished in 23 to 25 kg (50- to 55-pound) unit packs as specified for the required level of preservation (see 6.10.2).

6.10.2.2 Level A. Unit packs should consist of a plastic bag with a fiberboard box overpack as follows:

- (a) Plastic bag. The plastic bag should be constructed of material conforming to L-P-378, type I, class 1, with thickness grade and finish at the contractor's option. Final bag closure should be accomplished by twisting and securing with a reusable lock type plastic tie.
- (b) Fiberboard box. The fiberboard box should conform to PPP-B-636, class weather-resistant with variety, grade, and style at the contractor's option. Box closure should use method V for closure and be reinforced with tape or nonmetallic stripping in accordance with the appendix to PPP-B-636.

6.10.2.3 Level C. The unit pack should be as specified for level A except that the fiberboard box should conform to class domestic with variety, grade, and style at the contractor's option. Box closure should be in accordance with method I using pressure-sensitive adhesive tape.

6.10.2.4 Commercial. Commercial packaging should be in accordance with ASTM D 3951.

6.10.2.5 Military. Military packaging should be in accordance with MIL-STD-2073-1.

6.10.3 Packing. Packing should be level A, B, C, or commercial as specified.

6.10.3.1 General requirements for levels A, B, and C. Containers selected (see 6.10.3.1.1) should be of the minimum weight and cube consistent with the protection required, of uniform size, and contain identical quantities of identical material.

6.10.3.1.1 Levels A, B, and C. Coating preserved as specified (see 6.10.1) should be packed in exterior shipping containers in accordance with MIL-STD-2073-I, and herein. Unless otherwise specified, container selection should be at the contractor's option.

6.10.3.1.1.1 Caseliners, closure, and gross weight.

6.10.3.1.1.1.1 Caseliners. Unless otherwise specified, level A shipping containers containing coating preserved level C or commercial should be provided with waterproof caseliners in accordance with MIL-STD-2073-I.

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

6.10.3.1.1.1.3 Weight. Wood, plywood, and cleated type containers exceeding 91 kg (200 pounds) gross weight should be modified by the addition of skids in accordance with MIL-STD-2073-I and the applicable container specification or appendix thereto.

6.10.3.1.2 Commercial. Coating preserved as specified (see 6.10.1) should be packed for shipment in accordance with ASTM D 3951.

6.10.3.2 Container modification. Shipping containers exceeding 91 kg (200 pounds) gross weight should have not less than two, 2.62 cm by 10.16 cm (3-inch 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, stowage, and storage.

6.10.4 Marking. In addition to any special marking required, interior (unit packs), shipping containers, and palletized unit loads should be marked for shipment and storage in accordance with MIL-STD-2073-1.

6.10.4.1 Special marking.

6.10.4.1.1 Special marking for use. Special marking for use should be in accordance with the requirements of 3.3, 3.25, and 4.9 as applicable, including health and safety information.

6.10.4.2 General marking. Each component container shall be marked with the following additional information:

- (a) Number and date of this specification.
- (b) Type and class of powder coating.
- (c) Manufacturer's name and the address of the manufacturing location.
- (d) Manufacturer's QPL designation, lot number, and date of manufacture.
- (e) Contract number.
- (f) Color name and number from FED-STD-595.
- (g) Special acquisition requirements (see 6.2(e), (k), (m), (g), and (h)).

6.11 Material safety data sheet. Material safety data sheets in accordance with FED-STD-313 should be required. A copy of the material safety data sheet should be attached to the shipping document for each destination (see 3.2.4)."

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30.1, (a) (3), lines 3 and 12: Delete "0.06 percent" and substitute: "0.10 percent".

(a) (3), line 14: Delete "...lead, chromium," and substitute: "...lead (0.06 percent by weight for lead), chromium,".

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(g): Delete "(g) A copy of the NEHC findings in 3.2.3.2".

(h): Delete "(h)" and substitute: "(g)".

Custodians:

Army - ME

Navy - SH

Air Force - 99

Preparing activity:

Navy - SH

(Project 8010-0945)

Review activities:

Army - MR

Navy - AS, MC, CG

Air Force - 84