MILITARY SPECIFICATION

COATING: POLYURETHANE, HIGH-SOLIDS

This amendment forms a part of MIL-C-85285B(AS), dated 13 May 1988, and is approved for use by the Naval Air Systems Command, Department of the Navy and is available for use by all Departments and Agencies of the Department of Defense.

PAGE 2

1.2.3 Kit Size, delete paragraph, in its entirety, and substitute:

"1.2.3 Kit Size. The coating covered by this specification shall be purchased by volume, as a kit, to produce admixed coatings conforming to paragraph 3.4. Each kit shall consist of Component A (base), Component B (activator) and, if necessary, Component C (thinner). Each component shall be packaged in a separate container. The total volume of the admixed components shall be a minimum of the volume stipulated under Kit Size, below.

Kit Size	Size of Kit Designation (see 1.2.1)
1 pint (0.47 liter)	5
1 quart (0.95 liter)	6
2 quarts (1.89 liters)	1
2 gallons (7.57 liters)	2
10 gallons (37.85 liters)	3
110 gallons (416.35 liters)	4"

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: Commanding Officer, Naval Air Engineering Center, Systems Engineering and Standardization Department (Code 53), Lakehurst, NJ 08733-5100, by using the Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

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PAGE 3

2.1.1, at the end of the paragraph, add the following:

"(Unless otherwise specified, copies of federal and military specifications, standards, and handbooks are available from the Standardization Documents Order Desk, Bldg. 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094)."

PAGE 4

2.2, under AMERICAN SOCIETY FOR TESTING AND MATERIALS, delete ASTM D1737, "Elongation of Attached Organic Coatings with Cylindrical Mandrel Apparatus", and ASTM D2197, "Adhesion of Organic Coatings"; and insert ASTM D522, "Mandrel Bend Test of Attached Organic Coatings".

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3.4, delete paragraph, in its entirety, and substitute:

"3.4 Composition. The aliphatic polyurethane coating furnished under this specification shall be in the form of a kit, consisting of the following: Component A, containing the pigmented, polyester resins and solvents; Component B, containing the clear, aliphatic isocyanate resins and solvents; and Component C, if necessary, containing the thinner. Component B shall act as the hardener or curing agent for Component A. The volume mixing ratio shall be as specified by the manufacturer. The coating kit shall be supplied such that the admixed coating consists of the minimum volume specified by the procuring activity, in accordance with paragraph 1.2.3."

3.4.2, delete the first sentence of the paragraph in its entirety.

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3.7.1, delete paragraph, in its entirety, and substitute:

"3.7.1 Drying time. When applied by spray techniques, the coating shall be set-to-touch within 4 hours and dry-hard within 8 hours (see 4.6)."

3.7.2, delete paragraph, in its entirety, and substitute:

"3.7.2 Surface appearance. When applied by spray techniques, up to four hours after mixing the coating, the coating shall dry to a uniform, smooth surface, free from runs, sags, bubbling, streaking, hazing, seeding, dusting, orange peel, floating, mottling, or other film defects (see 4.6)."

PAGE 7, continued

3.7.5, delete paragraph, in its entirety, and substitute:

"3.7.5 Gloss. At an 85° angle of incidence, the specular gloss of the camouflage colors shall be a maximum of 9, when tested in accordance with 4.6. At a 60° angle of incidence, the specular gloss shall be as specified below, when tested in accordance with 4.6.

	Minimum	Maximum
Gloss colors	90	--
Semi-gloss colors	15	45
Camouflage colors	--	5"

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3.7.7, delete paragraph, in its entirety, and substitute:

"3.7.7 Adhesion. After immersion in water for 24 hours, the coating shall not peel away from the primer during the tape test (see 4.6)."

3.7.8, delete the first sentence of the paragraph and substitute:

"The coating shall exhibit a minimum impact elongation of 40 percent for Type I material and 5 percent for Type II material, when tested at room temperature, in accordance with 4.6.7."

3.8.2, delete the second sentence of the paragraph and substitute:

"After exposure, the specular gloss at a 60° angle of incidence shall be a minimum of 80 for gloss colors, a minimum of 15 for semi-gloss colors, and a maximum of 5 for camouflage colors."

3.8.5, delete paragraph, in its entirety, and substitute:

"3.8.5 Solvent resistance (cure). The applied coating shall resist repeated rubbing with a cloth rag soaked with methyl-ethyl-ketone, when tested in accordance with 4.6.11."

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3.9.3, delete paragraph, in its entirety, and substitute:

"3.9.3 Cleanability (Type I only). Type I coating shall have a minimum cleaning efficiency of 70 percent, when tested in accordance with 4.6.13."

PAGE 11

Table II, delete last entry of the table: "Strippability, 3.9.4, 4.6.14".

PAGE 13

4.5.2, delete paragraph, in its entirety, and substitute:

"4.5.2 Application of finish scheme. The finish scheme shall be applied to the test panels in the following manner. Spray apply one cross-coat of epoxy-polyamide primer, conforming to MIL-P-23377 or MIL-P-85582, to a dry-film thickness of 0.6 to 0.9 mils and air-dry for one hour. The admixed topcoat may be reduced with thinner conforming to MIL-T-81772, Type I, in accordance with manufacturer's instructions. When reducing with thinner, do not to exceed the maximum allowable VOC content for this type of material. Allow the reduced topcoat to stand thirty minutes prior to use. The topcoat shall be applied to a dry-film thickness of 1.7 to 2.3 mils, in accordance with manufacturer's instructions. The coated panels shall be air-dired for at least seven days prior to testing."

PAGE 14

Table III, delete twelth entry, "3.7.7, 'Adhesion, Scape test', ASTM 2197, Method A".

PAGE 15

4.6.7.1, delete the first sentence of the paragraph and substitute:

"At room temperature, two coated panels, prepared in accordance with 4.6.7, shall be tested using a GE Impact-Flexibility Tester."

4.6.7.2, second line of first sentence, delete "ASTM D1737" and substitute "Test Method B, 'Cylindrical Mandrel Test', of ASTM D522".

PAGE 21

5.2.1.1, number 3, under 'Precautions', delete entry, in its entirety, and substitute:

"3. Open Component B carefully. Do not open bulged containers. Discard the component if the container bulged of if the material is not clear."

PAGE 22

6.2.1, delete entry 'a' and substitute the following:

"a. Title, number and date of this specification, the issue of the DODISS to be cited in the solicitation and, if required, the specific issue of individual documents referenced (see 2.1 and 2.2)."

Preparing Activity:
Navy - AS
(Project 8010-N416)