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SUPERSEDING
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MILITARY SPECIFICATION

COATING SYSTEM, EPOXY-POLYAMIDE, CHEMICAL AND SOLVENT RESISTANT: PROCESS FOR APPLICATION OF

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

1. SCOPE

1.1 Scope. This specification covers procedures for the application of epoxy-polyamide coating systems on interior and exterior surfaces of weapons systems or military equipment.

2. APPLICABLE DOCUMENTS

* 2.1 The following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this specification to the extent specified herein.

SPECIFICATIONS

Federal

O-T-620	Trichloroethane-1, 1, 1, Technical, Inhibited (Methyl Chloroform)
P-C-444	Cleaning Compound, Solvent, Grease Emulsifying
TT-E-527	Enamel, Alkyd, Lustreless
TT-L-20	Lacquer Camouflage
TT-L-32	Lacquer, Cellulose Nitrate, Gloss, for Aircraft Use

FSC 8010

SPECIFICATIONS

Federal (Continued)

TT-P-320	Pigment, Aluminum, Powder and Paste, for Paint

Military

MIL-M-3171	Magnesium Alloy, Processes for Pretreatment and Prevention of Corrosion on
MIL-C-5410	Cleaning Compound, Aluminum Surface, Non-Flame-Sustaining
MIL-C-5541	Chemical Conversion Coatings on Aluminum and Aluminum Alloys
MIL-F-7179	Finishes and Coatings, General Specification for Protection of Aerospace Weapons Systems, Structures and Parts
MIL-L-7808	Lubricating Oil, Aircraft Turbine Engine, Synthetic Base
MIL-C-8507	Coating, Wash Primer (Pretreatment) for Metals Application of (for Aeronautical Use)
MIL-C-8514	Coating Compound, Metal Pretreatment, Resin-Acid
MIL-F-18264	Finishes, Organic, Weapons System, Application and Control of
MIL-L-19537	Lacquer, Acrylic-Nitrocellulose Gloss (for Aircraft Use)
MIL-L-19538	Lacquer, Acrylic-Nitrocellulose, Camouflage (for Aircraft Use)
MIL-T-19544	Thinner, Acrylic-Nitrocellulose Lacquer
MIL-T-19588	Toluene-Methyl Isobutyl Ketone Mixture
MIL-C-22750	Coating, Epoxy Polyamide

SPECIFICATIONS

Military (Continued)

MIL-P-23377	Primer Coating, Epoxy Polyamide, Chemical and Solvent Resistant
MIL-L-23699	Lubricating Oil, Aircraft Turbine Engines, Synthetic Base
MIL-C-25769	Cleaning Compound, Aircraft Surface, Alkaline Waterbase
MIL-C-43616	Cleaning Compound, Aircraft Surface
MIL-L-81352	Lacquer, Acrylic (for Naval Weapons Systems)
MIL-C-81706	Chemical Conversion Materials for Coating Aluminum and Aluminum Alloys

PUBLICATIONS

Naval Air Systems Command

NAVAL 01-1A-509	Corrosion Control for Aircraft
NAVAIR 07-1-503	Cleaning Materials for Naval Air Systems Maintenance and Overhaul Operations

(Copies of specifications, standards, drawings, and publications required by suppliers in connection with specific procurement functions should be obtained from the procuring activity or as directed by the contracting officer.)

3. MATERIAL AND EQUIPMENT

* 3.1 Material. The epoxy-polyamide coating system shall consist of epoxy-polyamide primer, MIL-P-23377 and epoxy polyamide topcoat, MIL-C-22750. Each paint is supplied in kit form wherein two components are admixed first prior to application. Additional materials required by this paint system for the surface treatment of aluminum, magnesium, corrosion resistant steel, and cadmium plated high strength steel are specified in 5.2 and 5.3.

3.2 Equipment. Spray guns, accessories, and lines shall be kept clean. Equipment should be cleaned out with either ethyl alcohol

or butyl alcohol or a mixture of both as soon as work is finished when using wash primer. Equipment should be cleaned out with thinner conforming to MIL-T-19544, as soon as the work is finished, and before changing color of paint when using epoxy primer or topcoat. Detailed procedures for use of equipment will be found in MIL-F-18264. Cleanliness must be exercised since wash primer or epoxy-polyamide paint, once cured, becomes difficult to dissolve.

4. MIXING AND THINNING INSTRUCTIONS

4.1 Mixing instructions.

* 4.1.1 Epoxy-polyamide primer and topcoat. Both epoxy primer and epoxy topcoat shall be mixed as follows:

(a) The components shall be thoroughly stirred prior to and after admixing. Mix in Red Devil shaker or if not available, use a paddle (remove excess paint from paddle). Reduction of Component I (pigmented solution) with Component II (clear solution) shall be one volume to one volume. Temperature of components shall be 65 to 95°F before mixing.

(b) Each component shall be sufficiently agitated as described above and shall be separately poured into the proper capacity container. Component I shall first be poured into the empty container with adequate time for complete drainage. Component II shall then be slowly poured into Component I with constant stirring. Proper drainage time shall be allowed for Component II. Each container of Components I and II may be rinsed with thinner, MIL-T-19588, MIL-T-19544, or the non-photochemically reactive solvent type thinner as applicable (see 4.2.1 and 4.2.2). Component II shall always be added to Component I, and this procedure shall not be reversed.

4.1.1.1 Aluminized epoxy-polyamide shall be prepared by adding 16 ounces of aluminum paste, TT-P-320 to one gallon of admixed clear epoxy-polyamide topcoat, MIL-C-22750 (see 5.6).

* 4.1.2 Precautions. Epoxy-polyamide paint from one vendor shall never be mixed with paint from another vendor. Components are not interchangeable: for example, Component I of insignia white may not be used with Component II of aircraft gray even though the components are from the same supplier. Class 1 topcoat MIL-C-22750 is intended for use over Class 1 primer MIL-P-23377; Class 2 topcoat is intended for use over Class 2 primer MIL-P-23377.

4.1.2.1 Pot life. The admixed paint must be used within 16 hours after mixing. Use of older material may result in poor adhesion even though there is no apparent change in the material.

4.2 Thinning (for spraying).

* 4.2.1 Epoxy-polyamide primer. Epoxy-polyamide primer is furnished in two classes under MIL-P-23377. Class 1 primer is intended for use under normal circumstances while Class 2 primer is intended for use where Air Pollution Regulations are in force. The admixed Class 1 primer shall be thinned to spraying viscosity of approximately 18 seconds in a No. 2 Zahn cup by adding approximately 1-1/2 volumes of thinner, MIL-T-19544 or MIL-T-19588 to two volumes of admixed primer stirred, strained and allowed to stand at room temperature for one hour before using. Add additional thinner as necessary to achieve desired spraying consistency. Class 2 primer varies in composition from Class 1 primer by the use of non-photochemically reactive solvents in its formulation. Therefore, two volumes of the Class 2 admixed primer shall be thinned for spraying by adding approximately 1-1/2 volumes of non-photochemically reactive thinner which is compatible with Class 2 primer as specified in MIL-P-23377 and manufacturers directions.

Note: For Class 1 primer, the MIL-T-19544 thinner produces better flow characteristics but may slow up taping time because of the higher boiling solvents in the thinner.

* 4.2.2 Epoxy-polyamide topcoat. Epoxy-polyamide topcoat is furnished in two classes under MIL-C-22750. Class 1 topcoat is intended for use under normal circumstances while Class 2 topcoat is intended for use where Air Pollution Regulations are in force. The admixed Class 1 epoxy-polyamide topcoat shall be reduced to spray viscosity by adding approximately one volume of thinner, MIL-T-19544 to two volumes of admixed topcoat (one volume Component I to one volume of Component II to one volume thinner). The thinned paint shall be stirred thoroughly, strained, and allowed to stand at room temperature for one hour before using. The admixed Class 2 epoxy-polyamide topcoat shall be thinned as for Class 1 except that the thinner shall be a non-photochemically reactive solvent which is compatible with the paint as specified in MIL-C-22750.

Note: Other thinners or thinning ratios may be used provided they have demonstrated satisfactory performance in service and are acceptable to the procuring activity.

4.2.2.1 The standing period for primer and topcoat is necessary for the following reasons:

(a) Preliminary period for the components to enter into chemical reaction.

(b) This period shortens dry time.

(c) Reduces cratering.

(d) Attains low gloss with camouflage colors, otherwise Component II may "sweat out" or migrate.

(e) Allow any bubbles (formed while stirring) to escape.

4.3 Modified epoxy topcoat (Class 1 only). The drying time to tape (no imprints) of some gloss epoxy topcoats may be shortened by the use of an additive, [2, 4, 6- Tri (dimethylamino methyl) phenol]. The additive is used in the form of a stock solution which is made up in accordance with Table I.

TABLE I

CUBIC CENTIMETERS OF MATERIAL

Solution	Color and Color Number		
	Aircraft Gray 16473	Insignia White 17875	Engine Gray 16081
[2, 4, 6- Tri (dimethylamino methyl) phenol] 1/	55	58	56
Butyl Alcohol TT-B-846	893	890	892

1/ This material may be obtained from Rohm & Haas as DMP 30.

Add the phenol to the alcohol and stir until it is in solution. This will make one quart of stock solution; larger quantities may be made by using the same proportion of additive to alcohol.

CAUTION: [2, 4, 6- Tri (dimethylamino methyl) phenol] is toxic and will cause skin irritation. Handle with care.

4.3.1 Preparation of modified epoxy topcoat (Class 1 only). Mix the epoxy topcoat in accordance with the general instructions of

4.1.1 in the ratio of one volume of Component I to one volume of Component II to 1/4 volume of stock solution; i.e., one gallon to one quart. Allow the admixed material to stand one hour before thinning.

Thin for spraying in accordance with 4.2.2 except that approximately 3/4 volume of thinner is used instead of one volume.

Note: Under no circumstances shall more than the required amount of additive be used with the amount of epoxy paint being mixed. Additional quantities can cause embrittlement of paint coating.

5. PROCEDURES AND OPERATIONS

* 5.1 Preparation of metal surfaces. Unless otherwise specified, metal surfaces shall have been surface treated before assembly and shall have received the requisite primer and insulating coatings between faying surfaces, in accordance with the requirements of MIL-F-7179. A brief summary of the applicable surface preparation and priming sequence requirements, contained in MIL-F-18264 and related documents such as Naval Air Systems Command Document NAVAIR 07-1-503 chart, is contained in 5.2 below as a guide. These do not replace or supersede the more extensive and detailed requirements of the applicable specifications.

5.2 Bare surfaces. Unpainted surfaces which require painting after complete assembly or after stripping should be treated as follows, prior to application of the epoxy coating.

5.2.1 Mask. Prior to surface cleaning, chemical treatment, or painting, areas such as canopy, windshield, radome, transparent light covers shall be masked with masking material and taped in place. On canopy or windshield, tape shall be applied to the frames adjacent to the transparent areas but shall not contact the plastic or glass. All exposed portions of actuated rods passing through hydraulic seals shall be protected from any material application during cleaning or finishing to prevent damaging seals. All other areas requiring protection shall be masked. Any residue left by masking shall be removed with safety solvent conforming to O-T-620.

* 5.2.2 Cleaning. Surfaces which are not clean will produce poor paint adhesion, with subsequent paint loss in service, leaving the metal unprotected from corrosive conditions. Therefore, removal of grease, oil, and other gross surface contaminants shall be accomplished by spot cleaning with methyl ethyl ketone or ethyl acetate prior to cleaning with aqueous solutions of MIL-C-43616 type cleaning compound. All residue shall be flushed off with hot or cold tap water. Particular attention should be given to fasteners and other areas where residues may become entrapped.

5.2.2.1 Water-break test. Chemically cleaned surfaces shall be subjected to a water-break test. A mist of distilled water shall be atomized on the surface, employing any convenient small atomizing device. If the water droplets tend to coalesce into large lenses lasting for 25 seconds (without a sudden flashout) then the surface shall be considered as having satisfactorily passed the water break test. If the water gathers into droplets within 25 seconds, in other words, if the surface shows a "water-break" within that time, then the surface shall be considered as having failed the test. If the water forms a continuous film by flashing out suddenly over a large area, then this shall be considered evidence of the presence of an impurity on the surface such as free alkali, residual detergent, etc., and the surface shall be considered as having failed the test. Failure to support an unbroken water film shall be sufficient cause to do additional cleaning.

5.2.2.2 Cleaners. Cleaning materials which may be effective against one type of contaminant may be ineffective against others. Therefore, multiple cleaning procedures may be required to provide the required water-break-free surface.

* 5.2.3 Remove surface-oxide and trace contaminants on aluminum and magnesium. Removal of surface oxides and trace contaminants on aluminum and magnesium surfaces after cleaning operations (5.2.2) should be accomplished, while surfaces are still wet, with material conforming to Type II, (Type I for heavy oxidation) MIL-C-5410, mixed one volume of Type II with three volumes of water. Application should be with soft bristle brushes working from bottom to top. Allow to react with aluminum for as short a time as necessary, and with magnesium for five minutes (maximum) and then rinse with water, brushing all screws, rivet heads, and faying surfaces to insure removal, particularly on magnesium to avoid severe pitting attack. Use of vacuum, not pressure, to dry out seams, rivets, etc., is recommended.

WARNING: Avoid trapping solution in crevices by adequate masking to prevent entry of solutions into inaccessible areas.

At this stage the surface should have a neutral or slightly acid reaction for aluminum and metals other than magnesium (slightly alkaline for magnesium) and be capable of passing the water-break test of 5.2.2.1. The above is a suggested procedure which may be modified when circumstances so dictate.

CAUTION: Do not apply cleaner-brighteners to structural steel parts such as landing gear and arresting gear. Mask these parts prior to the cleaner-brightener treatment.

* 5.2.4 Surface treatment. After cleaning and removal of any surface oxides as outlined in 5.2.3, all surfaces including damaged

areas of anodic coating should be retreated (or newly treated) with materials conforming to MIL-C-81706 to produce coatings conforming to MIL-C-5541. The surfaces should be painted as soon as possible after rinsing and drying. The use of MIL-C-81706 materials over conventional anodic coatings produced from chromic acid is recommended to improve the adhesion of the epoxy primer. After application of the coating conforming to MIL-C-5541 and a complete rinsing, a wipe with a clean white cloth, wet with distilled water shall show no stains. For magnesium surfaces, if brown stains are found, the surface shall be wiped with clean white cloths wet with distilled water until a clean surface is accomplished. Scratched magnesium surfaces shall be treated in accordance with MIL-M-3171.

* 5.3 Paint systems.

5.3.1 New work and rework. For general application to weapons systems and military equipment, the epoxy-polyamide paint system shall consist of epoxy-polyamide primer and epoxy-polyamide topcoat. Aluminum and magnesium surfaces shall be prepared as specified in 5.1 through 5.2.4. A prior coat of wash primer, MIL-C-8514, applied in accordance with MIL-C-8507, is mandatory for corrosion resistant steel surfaces and high strength steel overcoated with cadmium plate, if the latter does not receive a supplemental chemical treatment. Glass fiber laminates shall be scuff-sanded before application of the primer. Surfaces shall be at room temperature before applying paint coatings.

5.4 Epoxy-polyamide primer. After completion of the waiting period specified in 4.2.1, spray one wet cross coat of epoxy-polyamide primer to a dry film thickness of 0.6 to 0.9 mil. Allow to air dry for one hour before applying topcoat. Cross coating of the primer provides superior corrosion protection.

Note: The temperature of the surface to be painted and the ambient temperature should be between 65° and 95°F (see Tables II and III).

* 5.5 Application of epoxy-polyamide topcoat. After completion of the waiting period specified in 4.2.2, spray a mist coat of the admixed topcoat over the epoxy-polyamide primer and allow to dry for 30 minutes. The mist coat should be a thin, discontinuous film which is translucent (not full hiding). Application of mist coat is essential to prevent bleeding of primer. Follow with a wet pass of epoxy-polyamide topcoat to a total dry film thickness of 2.0 to 2.4 mils for the two material epoxy primer-topcoat system. The limitations on film thickness are not mandatory for surface areas on which such limits are impractical to maintain; for example, contoured areas. However, film thickness should be controlled in these areas, to prevent excessive deposition of paint.

5.5.1 Spraying techniques. The spray gun must be kept moving to avoid thick films of epoxy coating. Thickness of coating shall be kept within the prescribed limits to avoid poor adhesion. Thick films of epoxy coating do not sag or run as do other types of paint. Cross coating tends to promote thick films; if used, care should be taken to stay within film thickness limits.

5.5.2 Drying time. The appropriate drying time of the epoxy-polyamide finish is shown for each color in Table II. Wet tape adhesion tests shall be made in accordance with MIL-F-18264 to assure the maintenance of a satisfactory level of adhesion.

TABLE II 1/

DRYING TIME (HOURS AT 70°F)

Color	Glossy colors	Low gloss (camouflage) colors	Aluminized clear
Dry to touch	1	1/2	1/2
Tack free	6	1-1/2	1-1/2
Dry through	24	7	7

1/ Although the coating dries within the indicated period, it does not achieve its optimum chemical resistance or ultimate adhesion until after about 8 days air drying. Sufficient dry time should therefore be allowed before operating the weapons system or equipment, to avoid damage to the coating. However, in case of emergency, weapons systems may be operated after 48 hours. Wet tape tests may be run after 48 hours, however, failure of the test at this time does not indicate ultimate poor adhesion to the paint system. Drying time may be accelerated by holding in a warm atmosphere (90 to 100°F).

* 5.6 Epoxy-polyamide paint for heat resistance. Epoxy-polyamide paints (except aluminized) have an upper temperature limit of approximately 325°F for prolonged periods. Although film properties will be acceptable, discoloration will occur. Aluminized epoxy-polyamide coatings are superior in heat resistance compared to the other colors, having a maximum temperature limit of about 400°F for prolonged periods. The aluminized epoxy-polyamide paint shall be prepared as follows:

(a) The admixed clear epoxy-polyamide solution shall be added in small increments to the aluminum paste with constant stirring until thoroughly incorporated.

(b) After mixing and thinning as specified in Section 4 the aluminized epoxy-polyamide paint shall be applied over epoxy primer for areas requiring heat resistant finish. The film may be air-dried or it may be cured at 300°F for about 1/2 hour. Lower temperatures may be used with corresponding increase in baking time. For aluminized films on porous metal, it may be necessary to force dry the coating for 1/2 to one hour at 150° to 180°F before curing at 300°F.

TABLE III 1/

TEMPERATURE/DRYING TIME

Temperature (degrees F)	Drying time to prevent spotting due to condensation
120°	3-4 hours
70° - 80°	1-2 days
60° - 70°	2-3 days
40° - 50°	3-4 days

1/ This table indicates under cover storage requirements for gloss epoxy to prevent spotting due to condensation.

6. GENERAL PROCEDURES AND OPERATIONS

6.1 Identification of coating system. The paint system applied shall be identified in accordance with MIL-F-18264 for aircraft. Items other than aircraft shall be marked as required by the procuring activity.

6.2 Compatibility of systems. Whenever touch-up or over-painting with epoxy-polyamide paint is required, the finish system on the weapons system shall first be determined by the paint plaque (starboard side of the fuselage under the horizontal stabilizer) for purposes of evaluating compatibility. Weapons systems previously painted with other than epoxy systems shall be stripped and resurface treated before painting with epoxy-polyamide paint. Touch-up and partial over-painting of the existing epoxy-polyamide systems with a thin coat of epoxy-polyamide primer and a coat of epoxy-polyamide topcoat may be accomplished

provided the surface is first scuff-sanded with No. 400 wet or dry paper. The foregoing comment also applies to military equipment.

6.3 Practice panels. To familiarize personnel with painting techniques, equipment, thinning and mixing ratios, etc., and to determine the adequacy of production procedure, practice panels should be used before starting actual painting.

6.4 Exterior markings.

6.4.1 Masking. Masking for insignia and marking may be started after the coating has dried tack free and dry to tape, approximately six hours dry (See Table II), by applying tape with minimum pressure to avoid marring of the epoxy paint. Use of preformed masks and double-adhesive backed tape will be found helpful.

6.4.2 Insignia and marking application. Acrylic lacquer MIL-L-81352 shall be employed as the standard insignia and marking material. It shall be applied directly to epoxy topcoats which have dried a minimum of six hours and up to a maximum of one week. For accelerated drying of epoxy see 4.3.

6.4.2.1 Absence of acrylic lacquer. In the absence of acrylic lacquer, MIL-L-81352, acrylic-nitrocellulose lacquer, MIL-L-19537 or MIL-L-19538 may be applied directly over epoxy topcoats that have dried a maximum of eight hours. If the epoxy topcoat has dried for a larger period clean as necessary and apply a mist coat of fresh epoxy topcoat, dry for two to four hours and then apply the lacquer.

6.4.2.2 Chalked surface. If the epoxy surface has chalked, scuff-sand lightly. An epoxy primer thin coat is required over the sanded surface before applying MIL-L-81352, MIL-L-19537 or MIL-L-19538 topcoat.

6.4.2.3 Production conditions. Under production conditions and local factors, such as exposure to sunlight and elevated temperatures, the above time limits may require shortening. In addition, since airborne contamination of surfaces will increase with time, insofar as practicable, masking should be accomplished as soon as the coating resists imprinting and the paint should be applied as shortly thereafter as possible to avoid poor adhesion.

6.4.2.4 Squadron markings. After receipt of the weapons system from Naval Air Rework Facility, the squadrons may apply their markings as follows: Scuff sand lightly and apply MIL-L-81352 lacquer. As an alternative apply a thin coat of MIL-C-22750 epoxy in the background color, dry two to four hours and apply MIL-L-19537 or MIL-L-19538 lacquer or apply in accordance with 6.4.2 or mask as in 6.4.1, clean and apply TT-E-527 enamel in the appropriate color.

* 6.4.2.5 Equipment not employing diester lubricants. For aircraft or equipment not employing MIL-L-7808 or MIL-L-23699 engine lubricant, nitrocellulose lacquers, TT-L-32 and TT-L-20, may be employed for insignia and markings. These may be applied without the mist coat of epoxy even if the epoxy has exceeded the maximum dry period of eight hours.

* 6.5 Maintenance cleaning of epoxy-polyamide surfaces. Epoxy-polyamide weathered paint films tend to chalk prematurely. The extent of chalking of the epoxy-polyamide paint is of a superficial nature but is sufficient to retain dirt or oil. In order to minimize this condition, any of the following procedures should be utilized: (See 5.2.2 and 6.6.1.)

(a) Clean the epoxy-polyamide surface with aqueous solution of cleaning compound, MIL-C-43616 (dilute one part compound to nine parts water). After flushing with water, rub lightly with soft rag.

(b) For heavy soil, clean with P-C-444, Type I. This shall be followed with a light cleaning using MIL-C-25769.

6.6 Touch-up. Weapons system and military equipment surfaces requiring touch-up must be clean, since contamination of any kind will cause poor adhesion, cratering and premature film failure. Paint surfaces requiring touch-up shall be prepared by first masking necessary areas as outlined in 5.2.1.

6.6.1 Cleaning and treatment. After masking, clean in accordance with Naval Air Systems Command Document NAVAIR 01-1A-509. Oxidized paint shall require light sanding with 300 to 400 abrasive paper to obtain adequate intercoat adhesion. Any paint areas scratched or abraded to the bare metal shall be treated as outlined in 5.2.3 and 5.2.4, as applicable.

6.6.2 Paint operation (Touch-up). The epoxy-polyamide shall be applied by spraying or brushing over the cleaned and sanded areas. For small touch-up areas, epoxy topcoating may be applied directly to clean and surface treated base metal. However, where unpainted parts are to be installed, use general method outlined in 5.2. Before initiating touch-up, consult 6.2.

Note 1: If brushing is used for small areas, omit epoxy primer because it will bleed through topcoat.

Note 2: Generally, for squadron touch-up, various other aircraft finishes in addition to the epoxy system may be touched up with epoxy-polyamide paint provided the surface is lightly scuff-sanded prior to applying a thin coat of epoxy-polyamide primer plus a mist coat and full coat of epoxy-polyamide topcoat.

* 6.7 Application procedures Application procedures referred to appropriate paragraphs of this specification are outlined in Table IV.

* TABLE IV

OUTLINE OF APPLICATION PROCEDURES
(referenced paragraph for constructions)

Operation	Comment	Paragraph reference
Clean	Clean in accordance with MIL-P-18264 Subject cleaned surface to water-break test.	5.2.2 5.2.2.1
Surface Preparation	Prepare surface for painting in accordance with MIL-F-7179, 5.2.3 and 5.2.4.	5.2.3 and 5.2.4
Wash Primer	For limitations in use see 5.3. Apply in accordance with MIL-C-8507.	5.3
Epoxy-Polyamide Primer	Apply in accordance with 5.4.	5.4
Epoxy-Polyamide Topcoat	Apply a mist coat and allow to dry 30 minutes then apply a wet pass, do not cross coat.	5.5
Exterior Marking	Use MIL-L-81352 as the standard insignia and marking material over epoxy topcoat which has dried a minimum of six hours and up to a maximum of one week. In the absence of MIL-L-81352 use MIL-L-19537 or MIL-L-19538 over epoxy topcoat which is less than 8 hours old. Chalked surfaces shall be lightly scuff-sanded. Apply MIL-L-81352 over sanded surface. When using MIL-L-19537 or MIL-L-19538, an epoxy tie coat is required over the sanded surface. TT-L-32 or TT-L-20 lacquer may be used over epoxy surfaces that do not come in contact with MIL-L-7808 or MIL-L-23699 engine lubricants.	6.4
Touch-up	Weapons system touch-up shall be performed as specified in 6.6.	6.6
Drying time	Consult Tables II and III for appropriate drying time of epoxy finish.	5.5.2

6.8 Application of walkway and leading edge coatings. The following precautions shall be observed when applying walkway coatings:

(a) Walkway and leading edge coatings should be applied to the aircraft during the initial painting operations. Maximum overcoat time limitations vary depending upon temperatures, humidity, and exposure, however, eight to 10 hours after the application of the topcoats is considered desirable for optimum adhesion.

(b) If the topcoats have dried for over 10 hours, apply a mist coat of epoxy primer prior to the application of the coatings. Thoroughly aged systems will require cleaning, scuff sanding, and application of a mist tie coat of epoxy primer to ensure good intercoat adhesion of the coatings to the existing system.

7. NOTES

7.1 Intended use. This epoxy-polyamide system was developed primarily for protection of Naval weapons systems and may be used on exterior and interior surfaces. It is highly resistant to chemicals and solvents. It is also recommended for use on other military equipment exposed to similar conditions.

7.2 Changes from previous issue. The outside margins of this document have been marked "*" to indicate where changes (deletions, additions, etc.) from the previous issue have been made. This has been done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content as written irrespective of the marginal notations and relationship to the last previous issue.

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