MILITARY STANDARD

PROTECTIVE FINISHING FOR ARMY MISSILE WEAPON SYSTEMS

TO ALL HOLDERS OF MIL-STD-186D:

1. THE FOLLOWING PAGES OF MIL-STD-186D HAVE BEEN REVISED AND SUPERSEDE THE PAGES LISTED:

NEW PAGE	DATE	SUPERSEDED PAGE	DATE
3	20 June 1980	(Reprinted without change)	
4	25 June 1982	4	10 November 1975
5	20 June 1980	(Reprinted without change)	
6	25 June 1982	6	10 November 1975
7	25 June 1982	7	20 June 1980
8	25 June 1982	8	3 December 1976
9	25 June 1982	9	20 June 1980
9a	25 June 1982	9a	20 June 1980
13	10 November 1975	(Reprinted without change)	
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19	25 June 1982	19	3 December 1976
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27	25 June 1982	27	3 December 1976
27a	25 June 1982	27a	3 December 1976
27b		(Blank Page)	
28	25 June 1982	28	3 December 1976
31	25 June 1982	31	10 November 1975
32	25 June 1982	32	3 December 1976
33	25 June 1982	33	20 June 1980
34	25 June 1982	34	20 June 1980
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38	25 June 1982	38	10 November 1975
39	25 June 1982	39	10 November 1975
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41	25 June 1982	41	20 June 1980
42	25 June 1982	42	20 June 1980
43	25 June 1982	43	10 November 1975
44	25 June 1982	44	20 June 1980
45	25 June 1982	45	10 November 1975
46	10 November 1975	(Reprinted without change)	
49	25 June 1982		20 June 1980
50	25 June 1982	50	10 November 1975

MFFP

2. MAKE THE FOLLOWING PEN AND INK CHANGE:

Page ii, paragraph 2, delete "DRSMI-ED" and substitute "DRSMI-RSDS".

3. RETAIN THIS NOTICE AND INSERT BEFORE TABLE OF CONTENTS.

4. Holders of MIL-STD-186D will verify that page changes and additions indicated above have been entered. This notice page will be retained as a check sheet. This issuance, together with appended pages, is a separate publication. Each notice is to be retained by stocking points until the Military Standard is completely revised or canceled.

Custodian:
Army-MI

Preparing activity:
Army-MI

Review activities:
Army-ME, MR

Project No. MFFP-A242

DDD-T-539	Towels, Machinery Wiping (laundered)
MMM-A-121	Adhesive, Bonding Vulcanized Synthetic Rubber to Steel
MMM-A-132	Adhesive, Heat Resistant, Airframe Structural Metal-to-Metal
MMM-A-134	Adhesive, Epoxy Resin, Metal
MMM-A-1617	Adhesive, Rubber Base, General Purpose
PPP-T-42	Tape, Packaging/Marking, Paper

MILITARY

MIL-T-152	Treatment, Moisture and Fungus Resistant, of Communications, Electronic, and Associated Electrical Equipment
MIL-V-173	Varnish, Moisture-and-Fungus-Resistant (for the Treatment of Communications, Electronic and Associated Electrical Equipment)
MIL-E-463	Ethyl Alcohol (for Ordnance Use)
MIL-F-495	Finish, Chemical, Black for Copper Alloys
MIL-S-974	Surfacer, Sanding
MIL-L-3150	Lubricating Oil, Preservative, Medium
MIL-M-3171	Magnesium Alloy, Processes for Corrosion Protection of
MIL-L-3891	Luminescent Material and Equipment (Non-radioactive)
MIL-A-3920	Adhesive, Optical, Thermosetting
MIL-S-4383	Sealing Compound, Topcoat, Fuel Tank, Buna-N Type
MIL-W-5044	Walkway Compound, Nonslip and Walkway Matting, Nonslip
MIL-W-5050	Walkway Coating, and Matting, Nonslip, Aircraft Application of

Supersedes Page 3 of Notice 1,
dated 3 Dec 1976

MIL-A-5540	Adhesive, Polychloroprene
MIL-C-5541	Chemical Films for Aluminum and Aluminum Alloys
MIL-A-6091	Alcohol, Ethyl, Specially Denatured, Aircraft
MIL-P-6808	Primer Coating, Zinc Chromate, for Aircraft and Missile Applications, Application of
MIL-I-6869	Impregnants for Aluminum Alloy and Magnesium Alloy Castings
MIL-T-7003	Trichlorethylene, Stabilized Degreasing
MIL-P-8116	Putty, Zinc Chromate, General Purpose
MIL-C-8507	Coating, Wash Primer (Pretreatment) for Metals, Application of (for Aeronautical Use)
MIL-I-8574	Inhibitors, Corrosion, Volatile, Utilization of
MIL-A-8576	Adhesive, Acrylic Base, for Acrylic Plastic
MIL-A-8625	Anodic Coatings, for Aluminum and Aluminum Alloys
MIL-S-8802	Sealing Compound, Temperature Resistant, Integral Fuel Tanks and Fuel Cell Cavities, High Adhesion
MIL-C-8837	Coating, Cadmium (Vacuum Deposited)
MIL-M-10578	Metal Conditioner and Rust Remover (Phosphoric Acid Base)
MIL-T-10727	Tin Plating; Electrodeposited or Hot-Dipped, for Ferrous and Nonferrous Metals
MIL-G-10925	Grease, Automotive and Artillery
MIL-S-11030	Sealing Compound, Noncuring, Polysulfide Base
MIL-S-11031	Sealing Compound Adhesive: Curing (Polysulfide Base)

Supersedes page 4 of 10 Nov 75

MIL-P-11414	Primer, Lacquer, Rust-Inhibiting
MIL-T-12664	Ferrous Resistant Paranitrophenol Treatment for Cork Products
MIL-S-13165	Shot Peening of Metal Parts
MIL-C-13924	Coating, Oxid, Black, for Ferrous Metal
MIL-C-14460	Corrosion Removing Compound, Sodium Hydroxide Base, for Electrolytic or Immersion Application
MIL-C-14538	Chromium Plating, Black (Electrodeposited)
MIL-C-14550	Copper Plating (Electrodeposited)
DoD-P-15328	Primer, (Wash), Pretreatment, Blue, Formula No. 117-B for Metals
MIL-S-15847	Spray Gun and Accessories, Paint and Dope, Aircraft Use
MIL-T-16070	Treatment, Mildew-Resistant, for Rope
MIL-C-16173	Corrosion Preventive Compound, Solvent Cutback, Cold Application
MIL-E-16738	Enamel, Exterior, White, Vinyl-Alkyd (Formula No. 122-82)
MIL-I-16923	Insulating Compound, Electrical, Embedding
MIL-F-18264	Finishes, Organic Weapons System, Application and Control of
MIL-P-18317	Plating, Black Nickel (Electrodeposited) on Brass
MIL-C-20218	Chromium Plating, Electrodeposited, Porous
MIL-T-21330	Treatment: Insect Resistant, for Paper
MIL-I-22110	Inhibitors, Corrosion, Volatile, Crystalline
MIL-S-22473	Sealing, Locking and Retaining Compounds, Single-Component
MIL-C-22750	Coating, Epoxy-Polyamide
MIL-C-22751	Coating System, Epoxy polyamide, Chemical and Solvent Resistant, Process for Application of

Supersedes page 5 of Notice 1,
dated 3 Dec 1976

MIL-T-23142	Tape, Pressure-Sensitive Adhesive, for Dissimilar Metal Separation
MIL-C-23217	Coat, Aluminum, Vacuum Deposited
MIL-P-23377	Primer, Coating, Epoxy-Polyamide Chemical and Solvent Resistant
MIL-P-23408	Plating: Tin-Cadmium (Electrodeposited)
MIL-S-23586	Silicone Rubber Compound, Room Temperature Vulcanizing
MIL-M-24041	Molding and Potting Compound, Chemically Cured, Polyurethane
MIL-L-25142	Luminescent Material, Fluorescent
MIL-A-25457	Adhesive, Air-Drying, Silicone Rubber
MIL-A-25463	Adhesive, Metallic Structural Sandwich Construction
MIL-C-26074	Coating, Nickel-Phosphorous, Electroless Nickel, Requirements for
MIL-P-27418	Plating, Soft Nickel (Electrodeposited, Sulfonate Bath)
MIL-A-40147	Aluminum Coating (Hot Dip) for Ferrous Parts
MIL-I-43553	Ink, Marking, Epoxy Base
MIL-T-45035	Treatments, Mildew-Resistant, Non-Copper Processes for Cotton Duck, Webbing and Sewed Items
MIL-S-45180	Sealing Compound, Gasket, Hydrocarbon Fluid, Water Resistant
MIL-M-45202	Magnesium Alloys, Anodic Treatment of
MIL-G-45204	Gold Plating, Electrode Deposited
MIL-P-45209	Palladium Plating (Electrodeposited)
MIL-L-46002	Lubricating Oil, Contact and Volatile Corrosion Inhibited

Supersedes page 6 of 10 Nov 75

MIL-L-46010	Lubricant, Solid Film, Heat Cured, Corrosion Inhibiting
MIL-I-46058	Insulating Compound, Electrical (for Coating Printed Circuit Assemblies)
MIL-R-46085	Rhodium Plating, Electrodeposited
MIL-A-46146	Adhesive-Sealant, Silicon RTV, Non-Corrosive (For Use with Sensitive Metals and Equipment)
MIL-C-46168	Coating, Aliphatic Polyurethane, Chemical Agent Resistant
MIL-P-46843	Printed Circuit Assemblies, Design and Production of
MIL-S-46844	Solder Bath Soldering of Printed Wiring, Assembly, Automatic Machine Type
MIL-L-46147	Lubricant, Solid-Film, Air-Cured (Corrosion Inhibiting)
MIL-P-46847	Plastic Material, Foamed Polyurethane for Encapsulating Electronic Components
MIL-P-46856	Primer, Coating Epoxy, Process for Application
MIL-P-47298	Polyurethane Molding Compound Chemically Cured, (Polyether Based)
MIL-D-50000	Dioctyl-P-Phenyleiamine (antiozonant)
MIL-L-52043	Lacquer, Semigloss
MIL-P-52192	Primer, Epoxy

Supersedes Page 7 of 20 June 1980

MIL-N-55392	Nickel-Carbon, Porous, Electrodeposited, for Camouflage
MIL-A-81236	Adhesive, Epoxy Resin with Polyamide Curing Agent
MIL-C-81302	Cleaning Compound, Solvent, Trichloro-trifluoroethane
MIL-C-81309	Compound, Corrosion Preventive, Water Displacing, Ultra-Thin Compound
MIL-T-81533	Trichlorethane, 1,1,1 (Methyl Chloroform) Inhibited, Vapor Degreasing
MIL-C-81562	Coating, Cadmium and Zinc (Mechanically Deposited)
MIL-P-81728	Plating, Tin Lead (Electrodeposited)
MIL-S-81733	Sealing and Coating Compound, Corrosion Inhibitive
MIL-C-81740	Coatings, Aluminum and Aluminum Alloys (Metallic Compound Decomposition)
MIL-C-81751	Coating, Metallic Ceramic
MIL-C-81797	Coating, Inorganically Bonded Aluminum (Electrophoretically Deposited)
MIL-A-81801	Anodic Coatings for Zinc and Zinc Alloys
MIL-R-81841	Rotary Flap Peening of Metal Parts
MIL-C-83286	Coating, Urethane, Aliphatic ISOCYANATE, for Aerospace Applications

STANDARDS

FEDERAL

Fed Std No. 595 Colors

Fed. Test Method Std. No. 141 Paint, Varnish, Lacquer, and related Materials; Methods of Inspection, Sampling and Testing

MILITARY

MIL-STD-276	Impregnation of Porous Nonferrous Metal Castings
MIL-STD-865	Brush Plating, Electrodeposition
MIL-STD-870	Cadmium Plating, Low Embrittlement (Electrodepostion)
MIL-STD-1250	Corrosion Prevention and Deterioration Control in Electronic Components and Assemblies
MIL-STD-1501	Chromium Plating, Low Embrittlement (Electrodeposition)

PUBLICATIONS

Army

MIS 13918	Preparation of Surfaces for adhesive Bonding, Process for
MIS 28744	Chromate Conversion Coating on Copper, Brass or Bronze
	(Applications for copies of MIS13918 and MIS28744 should be addressed to: Commander, US Army Missile Command, ATTN: DRSMI-WDR, Redstone Arsenal, AL 35898).
RIA-PD-636	Coating, Protective, Thermally Fused, Epoxy Plastic (for Metal Surfaces)
	(Applications for copies of RIA-PD-636 should be addressed to Commander, US Army Armament Materiel Readiness Command, ATTN: DRSAR-LET-T, Rock Island, IL 61299).

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

2.2 Other publications. The following documents form a part of this standard to the extent specified herein. Unless otherwise indicated, the issue in effect on date of invitation for bids or request for proposal shall apply.

ASTM B 253	Preparation of and Electroplating Aluminum Alloys

(Application for copies should be addressed to American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103).

NFPA No. 30	Storing
NFPA No. 33	Spray Finishing
NFPA No. 34	Dip Tank

(Application for copies should be addressed to the National Fire Protection Association, 60 Batterymarch Street, Boston, MA 02110.)

3. DEFINITIONS

3.1 Definitions. For the purposes of this standard, the following definitions apply.

Supersedes page 9a
20 June 1980

5.1.1.2 Flux removal. Soldering, welding, and brazing fluxes shall be completely removed. Washing with hot water, alcohol (ethyl alcohol per MIL-A-6091 or MIL-E-463, or isopropyl alcohol per TT-I-735), MIL-C-81302 or solvent, blend of MIL-C-81302 plus 35% isopropyl alcohol per TT-I-735 or a solvent conforming to MIL-T-7003 shall be used. Methyl or wood alcohol (methanol) shall not be used unless approved by the procuring activity.

5.1.1.3 Rinsing. Where materials are employed that show an acid or alkaline reaction, the cleaned parts shall be given a thorough water rinse to remove all acid or alkali prior to further treatment. It is advisable as a final rinsing operation to use distilled or deionized water in order to assure the complete removal of possible contaminants. (See paragraph 5.5.3)

5.1.2 Aluminum and its alloys. Aluminum and its alloys shall be either chemically or mechanically cleaned. The use of uninhibited alkaline materials, such as sodium hydroxide solutions, and of abrasives containing iron, steel wool, copper wool, iron oxide rouge, and steel wire which may become embedded and accelerate corrosion of aluminum alloys is prohibited. Materials conforming to P-C-436 shall be used for chemical cleaning. Sheet stock surfaces to receive anodic conversion coating treatment, sand castings, forging and heat treated stock shall be deoxidized (all oxide film removed with a suitable etchant) after cleaning. Other materials or methods may be used after data proving freedom from damage due to etching, pitting, and stress-corrosion cracking has been submitted to the procuring activity for approval.

5.1.3 High-hardness steels. Steels of Rockwell hardness C40 or over, including carburized and steel surfaces hardened by using other methods, shall be either sand, abrasive grit, steel shot, grit or glass bead blasted for rust or scale removal. Acid pickling or other hydrogen producing processes shall not be used.

5.1.4 Low-hardness steels. Steels of Rockwell hardness less than C40 shall be cleaned in accordance with TT-C-490 or acid pickling in as specified in Table I.

5.1.5 Magnesium and its alloys. Magnesium and its alloys shall be cleaned in accordance with MIL-M-3171.

5.1.6 Titanium and its alloys. For titanium and titanium alloys, vapor degreasing shall not be used, unless approved by the procuring activity. When permitted, the titanium parts shall be pickled after vapor degreasing. Where vapor degreasing is not permitted, a mild alkaline cleaner conforming to P-C-436b shall be used for soil removal from titanium and its alloys. For removal of contamination other than organic soil, titanium and its alloys shall be mechanically cleaned. Other cleaning methods shall not be used, unless approved by the procuring activity.

5.1.7 Copper, brass, cadmium, tin. Cleaning shall be accomplished by applicable method of table I, or as specified.

5.1.8 Wood. Wood surfaces shall be sanded or otherwise mechanically prepared to provide a clean, smooth surface free of waxes, oils, or greases.

5.2 Surface treatments. Codes for surface treatments are enumerated in table II.

5.2.1 Aluminum and aluminum alloys. All aluminum and aluminum alloys, including clad aluminum alloy surfaces, shall be anodized to produce coatings conforming to MIL-A-8625, either type I, type II, or type III. When paint finishing systems are to be applied, chemical films per MIL-C-5541 or wash primer DoD-C-15328 may be substituted for anodic coatings.

5.2.1.1 Electrically conductive surfaces. Anodic coatings shall be omitted from surfaces which require high electrical conductivity at relatively high impedance and high frequencies (RF). These areas can be coated with MIL-C-5541, Class 1A, chemical film but sufficient justification shall be furnished to and approval obtained from the procuring agency prior to design incorporation. The corrosion resistance of class 3 film is unsatisfactory.

5.2.1.2 Surface treatment of assemblies. Surface treatment shall be applied to assemblies and detail parts prior to assembly, except where surface treatment will interfere with the joining processes such as brazing or welding. The assemblies, or parts, shall not contain cavities or crevices where the process soulutions can be retained.

5.2.1.3 Touch-up. All surfaces which have the anodic coating or paint system removed or damaged shall be touched up with chemical film conforming to class 1A of MIL-C-5541 by grade B application (brush or swab) with the coating being confined strictly to the damaged area. This operation is required for drilled, punched, or countersunk holes unless other corrosion prevention methods are being used with procuring activity approval.

5.2.2 Magnesium alloys.

5.2.2.1 Method. All magnesium alloys shall receive an anodic coating in accordance with MIL-M-45202, Type I or Type II, Class A. Anodic coating applied in accordance with MIL-M-45202 shall be used for parts subject to abrasion, erosion, or wear. Note: MIL-M-3171 treatments shall only be used for temporary protection or as a paint base.

5.3.4 Black chromium plating. Black chromium plating shall be used where nonreflective, abrasion- or corrosion-resistant surfaces are required. Black chromium plating shall be in accordance with MIL-C-14538.

5.3.5 Porous chromium plate. Porous chromium plate is another form of engineering chromium. The process produces etched channels or pores in the surface of the plating to retain miniature pools of lubricating oil. Porous chromium plate shall be in accordance with MIL-C-20218.

5.3.6 Gray nickel-carbon plate. Gray nickel-carbon plate is a durable, protective camouflage finish used on aluminum, copper alloys and steel such as rotary dials and knobs for improved durability under frictional contact. Gray nickel-carbon plate shall be in accordance with MIL-N-55392.

5.3.7 Nickel plating. Nickel plating shall be used for the following applications:

(a) Where temperatures do not exceed 1000°F and other coatings would not be suitable.

(b) To minimize the effects of dissimilar metal contacts, such as mild steel with unplated corrosion-resisting steel or stainless steel in contact with other stainless steel.

(c) As an undercoat for other functional coatings.

(d) As a protective finish on metals without further supplementary treatment.

Nickel plating of parts and surfaces shall be in accordance with QQ-N-290.

5.3.8 Black nickel plating. Black nickel plating shall be in accordance with MIL-P-18317.

5.3.9 Electroless nickel coating. Where specified, electroless nickel coating shall be in accordance with MIL-C-26074. Type II shall be specified where the combination of high hardness and corrosion resistance are required.

5.3.10 Tin, tin alloy plating (coating). Tin, tin alloy coatings shall be used where the properties of these materials present distinct advantages in comparison with other platings.

5.3.10.1 Tin plating (coating). A plating of tin is preferred in lieu of cadmium for use on parts that are subsequently soldered. Where tin plating is specified, it shall be applied in accordance with MIL-T-10727. Caution: Tin plating per type I, MIL-T-10727, shall not be used where electrical or electronic currents are involved, unless the plating is reflowed.

5.3.10.2 Hot-dip tin, tin alloy coatings. Hot-dip or flowed coating are preferred where tin-lead (solder) or tin coating is required. Hot-dip tin shall be in accordance with type II, MIL-T-10727. Hot-dip or flow soldering (tin-lead) shall be in accordance with MIL-S-46844(MI). Tin-lead plating may be applied per MIL-P-81728.

5.3.11 Tin-cadmium plating. Tin-cadmium plating shall be in accordance with MIL-P-23408. This plating has an advantage over cadmium plating of being more corrosion-resistant.

5.3.12 Silver plating. Silver plating shall be in accordance with QQ-S-365.

5.3.13 Gold plating. Gold plating shall be in accordance with MIL-G-45204 and shall be used only where its electrical and corrosion-resistant characteristics are required. Gold plating shall not be used on surface areas to be soldered. If a part requires gold plating for plug-in connections, corrosion resistance, or other electrical reasons, the gold shall be removed from these surfaces to be soldered. Further precautions on gold plating for electrical use are outlined in MIL-STD-1250 and shall be observed. Gold plating of less than 50 microinches (Class 1) is considered to provide inadequate functional characteristics. Class 1 thickness is considered inadequate without a suitable underplace of nickel.

5.3.14 Rhodium plating. Rhodium plating shall be in accordance with MIL-R-46085.

5.3.15 Palladium plating. Palladium plating shall be in accordance with MIL-P-45209.

5.3.16 Copper plating. Copper plating shall be in accordance with MIL-C-14550.

5.3.17 Selective engineering plating (brush). Selective plating shall be in accordance with MIL-STD-865 or the most recent state-of-the-art approved methods.

5.4 Nonmetallic coatings. Codes for nonmetallic coatings are enumerated in table II.

5.4.1 Phosphate treatments. Phosphate treatments for ferrous parts, which are subsequently to be painted, shall conform to type I of TT-C-490.

5.4.2 Black oxide treatment. Black oxide treatments, conforming to MIL-C-13924 (for ferrous metals) and MIL-F-495 (for copper alloys) are primarily used for decorative purposes, to decrease light reflectance

and on moving parts that cannot tolerate the dimensional build-up of more corrosion-resistant finishes. When black oxide is applied to exterior surfaces, it shall be overcoated with clear lacquer or varnish, with paint or dry-film lubricant. When used on interior surfaces it shall be treated at least with a supplementary oil or wax coating.

5.4.3 Hard anodic coatings for aluminum and its alloys. Where hard anodic coatings are specified, they shall conform to type III of MIL-A-8625.

5.4.4 Metallo-ceramic and ceramic coatings. Metallo-ceramic and ceramic coatings shall not be used prior to approval by the procuring activity. Necessary process and quality control requirements shall be established, and technical data developed which shall be submitted to the procuring activity substantiating that the proposed coatings are entirely satisfactory for the intended use.

5.5 Organic coatings. Codes for organic coatings are enumerated in table IV.

5.5.1 General priming and painting of surfaces. Interior and exterior surfaces of the weapon system shall be painted with the materials specified herein. The painting sequence for all metals shall be preparatory treatment (i.e., anodized, chemical conversion coating, plating, or wash primer), primer, and top coats. These requirements may have been specified previously in the surface treatment paragraphs on the metal surfaces. The use of wash primer on high hardness Rc 40 steels is prohibited. High hardness Rockwell C 40 steels should be cleaned, primed, and top coated. Exterior surfaces of tactical equipment shall have a camouflage finish that meets the color, gloss, chemical agent resistance, and special reflectance characteristics of MIL-C-46168. Code 448 provides a callout for the forest green color with these properties. The forest green color can be molded-in, provided the surfaces meet the color, gloss, chemical agent resistance, and spectral reflectance requirements of MIL-C-46168.

Supersedes Page 19 of Notice 1,
dated 3 Dec 1976

5.5.2 Equipment and facilities.

5.5.2.1 General. The equipment and facilities used in applying surface finishes shall be suitable and adequate for the purpose and shall be subject to approval of the procuring activity. All safety precautions contained in Standard NFPA Nos. 30, 33, and 34 shall be observed. Painting shall be conducted in properly ventilated spray rooms or areas. Paint spray rooms shall be ventilated by means of a forced draft, effecting at least three complete changes of air every hour. Doors and windows shall be kept closed to exclude dirt and dust. The air shall be introduced into the room in such manner as not to cause turbulence or excessive air currents which would have the effect of causing orange peel in the paint film. Sufficient ventilation shall, however, be maintained to keep dried overspray from settling on surfaces which have already been painted and are still tacky. Where practicable, water-washed exhaust systems or grilled flooring over flowing water should be used. Humidity and temperature indicators shall be installed in a proper operation. Controls shall be employed for humidity and temperature or for temperature alone if a satisfactory ratio of temperature and humidity can be maintained, as defined herein. To insure that dirt and dust are kept to a minimum, all air entering spray booths or rooms shall be filtered; spray areas are to be kept clean; lint-bearing rags shall not be allowed in such areas; a positive air pressure shall be maintained in the spray booth or room. Lighting conditions shall be in accordance with the 1968 Illuminating Engineering Society Handbook. Lights in the floor, as well as coatings of high light reflectance, shall be used where required to increase lighting efficiency. The paint spray room floors shall be cleaned as frequently as required to insure good housekeeping.

streaks, blisters, seeds, excessive silking, or other irregularities of surface. Dry scuff sanding by hand, using No. 400 or No. 320 sandpaper should be employed, as necessary, to remove specks of roughness that might carry through to the topcoats, but extreme care should be exercised to avoid removing the primer down to the pretreatment coating. Great caution is necessary to avoid gouging the surface of rivets and other protuberances and edges of faying surfaces with the sandpaper, and thus remove the primer to bare metal, which results in subsequent susceptiblity to corrosion. Should this be, normal touch-up with primer should be accomplished. Areas where primer presents a distinctly rough appearance not removable by sanding should be stripped and new primer applied to the area involved. If bubbling of the wash primer and subsequent coatings are encountered on magnesium, it may be taken as evidence of inadequate surface treatment of the magnesium. Such bubbled coatings should be removed immediately and the surface given a manually applied chemical surface treatment, followed by wash primer.

5.5.4.14.5 Final dry of the finish. The parts, after painting, shall be permitted to dry in a dust-free atmosphere for a sufficient time prior to moving to insure that the paint is adequately dry and to avoid damage of the finish. Painted parts shall also be protected from condensing moisture and rain during the first 24 hours after painting. This time may vary somewhat depending on the temperature and type of paint used.

5.5.4.15 Application of camouflage paint. It is essential that MIL-C-46168 forest green paint be applied at a minimum dry film thickness of 1.80 mils to achieve color uniformity and optimum camouflage characteristics. Because of the higher degree of transparency of this paint in both the visual and infrared regions of the spectrum, an application of 0.8-1.0 mils dry, which is the normal application for an olive drab paint, would allow both the visual and infrared light to partially penetrate the surface and reflect the substrate or base coating. This would cause both nonuniformity in visual color and poor camouflage properties. Due to the extreme flatness of the paint, the color will vary to a degree, depending upon the texture and type of substrate, plus the orientation of the film and the direction by which the light hits the film. Acceptance of an end item shall not be based specifically on color. It shall be based on whether the paint was approved by the USA Mobility Equipment Research and Development Command, ATTN: DRDME-VO, Fort Belvoir, VA 22060, and whether application techniques are correct. As specified above, the paint must be applied at least 1.8 mils dry film thickness. A dust coat should be applied first before the two 1-mil dry films are applied. Allow a 15-minute dry time before the second application for solvent flash-off. A single application of 1.8 mils minimum is permissible, provided the paint film is free of imperfections such as runs, sags, or orange peel.

Supersedes Page 27 of Notice 1,
dated 3 Dec 76

Since this paint is extremely flat it will tend to mar and scratch to a slight degree when handled. As long as the marring and scratching is a small percentage of the paint film and it does not break through to the substrate, the piece of equipment shall not be rejected. This slight marring and scratching will not affect the camouflage properties when observed by photographic means. Before any painting is performed, proper cleaning, pretreatment, and painting shall be adhered to to asure that optimum adhesion is achieved.

6. INSPECTION

6.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the supplier is responsible for the performance of all inspection as specified herein. Except as otherwise specified, the supplier may utilize his own facilities or any commercial laboratory acceptable to the Government. The Government reserves the right to perform any of the inspections set forth in this standard where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

6.2 General inspection requirements. All equipment being processed shall be inspected at the various stages of cleaning, surface treating, electroplating, and application of other types of finishes and coatings, to ascertain that each process is done in strict accordance with this standard and individual specifications. The inspections and tests covered in this section shall not be considered restrictive. Any condition not in full accord with the applicable drawings and specification shall be regarded as defective.

Supersedes page 27a of Notice 1,
dated 3 Dec 76

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6.2.1 Tests. Materials, prior to their use, shall be inspected, sampled, and tested in accordance with the applicable specification and standard to determine compliance with the requirements of the particular specification. When purchasing camouflage paint, e.g. MIL-C-46168, production samples from the first lot of each color of the subject paint and a sample from each lot of paint manufactured shall be submitted to the USA Mobility Equipment Research and Development Command, ATTN: DRDME-VO, Fort Belvoir, VA 22060, for testing. Samples of surfaces with molded-in forest green color shall also be sent to the above laboratory. The submission of these samples is for validation of the paint or surfaces for spectral and gloss characteristics. With this information, the inspector will have the means, along with the painting procedures, to accept or fail an end product.

6.3 Applications inspection.

6.3.1 General. Inspectors shall conduct frequent and regular checks to assure compliance with the requirements of this standard. The items specifically detailed below shall receive the most scrupulous attention by inspectors and quality control personnel.

6.3.2 Cleanliness. Inspectors shall conduct tests just prior to application of paint-type coatings to assure that the surface is thoroughly clean and free from contaminants. The water break test described in 5.5.3.2 and the litmus paper test described in 5.5.3.2.1 shall be applied to questionable surfaces to assure that adequate cleaning and rinsing procedures have been employed and to check for freedom from residual steam-cleaning compound and other cleaning materials residues. If representative test areas fail these tests, the parts shall be returned to the cleaning process and recleaning accomplished.

6.3.3 Hiding power, gloss, and smoothness. Inspectors shall conduct regular and frequent inspection tests to insure smoothness of finish system. Regardless of whether the finish is high gloss or low gloss, specks and bumps detected visually or by drawing the fingertips across the snaded or rubbed finish in various directions shall be removed. There shall be no seediness or roughness caused by dried overspray, improper thinning, or improper gun adjustment. The painted surfaces (when dry) shall be checked visually for hiding power and gloss by comparision with an approved sample.

TABLE I - CLEANING METHOD

Code No.	Method
101	Cleaning, mechanical or abrasive, per TT-C-490, Method I.
102	Solvent cleaning per TT-C-490, Method II.
103	Hot Alkaline cleaning per TT-C-490, Method III.
104	Emulsion cleaning per TT-C-490, Method IV.
105	Phosphoric acid corrosion removing and metal conditioning treatment, MIL-M-10578, for ferrous and non-ferrous metals, slight etch, type shall be delineated on the drawing immediately following the code 105.
106	Alkaline cleaner for ferrous and non-ferrous alloys, boiling vat or steam cleaning, per P-C-436, nonetch to aluminum.
107	Immersion cleaning, per MIL-C-14460, Type I (for steel).
108	Electrolytic cleaning, per MIL-C-14460, Type II (for steel).
109	Sand lightly with number 400 grit paper.
110	Abrade lightly with aluminum wool; immerse for 3 minutes minimum in a solution of equal parts of nitric acid (specific gravity 1.42) and water. Follow with a water rinse and dry.
111	Magnesium cleaning, MIL-M-3171.
112	Prepare surfaces for bonding using procedures of MIS 13918. Preference of cleaning method where multiple methods are given for a particular surface shall be designated on the drawing immediately following the code number.

NOTE: The above methods listed shall be specified only when applicable and when the detail finishing specification does not contain a cleaning requirement.

Supersedes page 31 of 10 Nov 75

TABLE II - SURFACE TREATMENTS

Code No.	Treatment
201	Anodize, aluminum, chromic acid, type I, Class 1, per MIL-A-8625.
202	Anodize, aluminum, sulfuric acid, type II, class 1, per MIL-A-8625.
203	Anodize, aluminum, sulfuric acid, type II, class 2, per MIL-A-8625. Applicable colors shall be designated on the drawing immediately following the code number by delineating the color and chip code number (i.e., black, 27038; red, 31336) per FED-STD-595.
204	Anodize, hard coat, Type III, Class 2, per MIL-A-8625, Color Black 37038 per FED-STD-595. Color requirements other than black shall be designated on the drawing immediately following the code number.
205	Use Code 203.
206	Use Code 203.
207	Anodize, hard coat, type III, class 1, per MIL-A-8625.
208	Chromate conversion coat per MIL-C-5541, class 1A.
209	Anodic coating, magnesium, per MIL-M-45202. Type, class, and grade shall be delineated on the drawing immediately following the code number (i.e., code 209, type I, class A, grade 2, etc.).
210	Phosphate coating per TT-C-490, type I (zinc).
211	Phosphate coating per TT-C-490, Type II.
212	Use Code 401.
213	Black oxide for copper alloys per MIL-F-495.
214	Black oxide for ferrous metals including stainless steels, per MIL-C-13924. Class shall be delineated on the drawing immediately following the code 214 (i.e., code 214, class 2).
215	Zincate treatment, ASTM B253, preplate for aluminum.

TABLE II - Continued

Code No.	Treatment
216	Passivate by immersion for 30 minutes in a hot (120 to 130°F) aqueous solution containing 20 percent by volume nitric acid (Sp. Gr. 1.42) and 2 percent by weight of sodium dichromate, rinsed in clean hot water and then thoroughly dried (for 200/300/400 series and precipitation hardening corrosion-resistant steels).
217	Vacuum Pressure or Vacuum Soak Treatment. The clean, dry, well seasoned wood, freed of bark, shall be surfaced to the correct cross-sectional dimensions and then treated by vacuum and pressure, or vacuum and soak. The treating material shall conform to Compostion A of TT-W-572. Retention on treatment shall not be less than 0.3 pounds per cubic foot. The temperature of the preservative during the treating process is to be at the discretion of the contractor, so long as the requirements of TT-W-571 as to penetration and the above retention requirement are met.
218	Immersion treatment. Dress the wood part to correct cross-sectional dimensions. Immerse in composition B of specification TT-W-572 for not less than 4 hours. Allow the treated wood to air-dry or kiln-dry before it is painted.
219	Surface treatment. Dress the wood part to correct cross-sectional dimensions. Apply one liberal coat of composition A of specification TT-W-572. Where practical, apply the solution by immersion for not less than 3 minutes. Otherwise, brushing or low pressure spraying (no atomization) is acceptable. Allow the treated wood to air-dry or kiln-dry before it is painted.
220	Fungus resistant paranitrophenol treatment for cork product per MIL-T-12664.

TABLE II, Continued

Code No.	Treatement
221	Treatment, mildew-resistant, for rope per MIL-T-16070. Designate type on drawing immediately following code number.
222	Treatment, mildew-resistant, noncopper process for cotton duck, webbing, and sewed items, per MIL-T-45035. Class to be designated on drawing immediately following code number.
223	Treatment, insect-resistant for paper per MIL-T-21330.
224	Anodic coating for zinc and zinc alloys per MIL-A-81801. specify class on drawing immediately following code number.
225	Apply chromate treatment for brass per MIS-28744. Class to be designated on the drawing immediately following the code number.
226	Heavy phosphate coating per MIL-P-16232, Type M, Class 1 (Supplementary preservative treatment to be delineated on the drawing immediately following the code).
227	Heavy phosphate coating per MIL-P-16232, Type M, Class 2 (Supplementary treatment with lubricating oil MIL-L-3150).
228	Heavy phosphate coating per MIL-P-16232, Type M, Class 3 (No supplementary treatment).
229	Heavy phosphate coating per MIL-P-16232, Type M, Class 4 (Chemically converted; may be dyed to color as specified).
230	Heavy phosphate coating per MIL-P-16232, Type Z, Class 1 (Supplementary preservative treatment to be delineated on the drawing immediately following the code).
231	Heavy phosphate coating per MIL-P-16232, Type Z, Class 2 (Supplementary treatment with preservative conforming to MIL-C-16173, Grade 1 or MIL-L-3150).
232	Heavy phosphate coating per MIL-P-16232, Type Z, Class 3 (No supplementary treatment).
233	Heavy phosphate coating per MIL-P-16232, Type Z, Class 4 (Chemically converted: may be dyed to color as specified).
234	Water-Repellant Preservative (WRP) Treatment. Apply one liberal coat of WRP Solution to the wood surfaces. The solution shall contain copper napthenate, boiled linseed oil or exterior-grade varnish, parafin wax, and solvent. Where practical, apply the solution by immersion for not less than 3 minutes. Otherwise, brushing or low pressure spraying is acceptable. Allow the treated wood to air dry or kiln dry before it is painted.

TABLE III, CONTINUED

Code No.

324	Nickel plate, per QQ-N-290, class 1, Grade A, 0.0016 inch thick
325	Nickel plate, per QQ-N-290, Class 1, Grade B, 0.0012 inch thick.
326	Nickel plate, per QQ-N-290, class 1, Grade C, 0.0010 inch thick.
327	Nickel plate, per QQ-N-290, class 1, Grade D, 0.0008 inch thick.
328	Nickel plate, per QQ-N-290, class 1, Grade E, 0.0006 inch thick.
329	Nickel plate, per QQ-N-290, class 1, Grade F, 0.0004 inch thick.
330	Nickel plate, per QQ-N-290, class 1, Grade G, 0.0002 inch thick.
331	Use Code 325
332	Use code 327
333	Use Code 328
334	Nickel plate, per QQ-N-290, class 2, engineering plating, 0.002 inch minimum.
335	Use code 374.
336	Use code 375.
337	Nickel plate, per MIL-P-18317, black (similar to color #27038 FED-STD-595), 0.0002 inch minimum.
338	Silver plate, per QQ-S-365, type I, grade A (thickness 0.0005 inch minimum).

TABLE III, CONTINUED

Code No.	
*339	Silver plate, per QQ-S-365, Type I, grade B, Thickness 0.0005 inch minimum.
340	Gold plate, per MIL-G-45204, type II, grade C, class 2 (0.0001 inch thick).
341	Gold plate, per MIL-G-45204, Type II, grade C, class 3 (0.0002 inch thick).
342	Gold plate, per MIL-G-45204, Type II, grade C, class 4 (0.0003 inch thick).
343	Gold plate, per MIL-G-45204, type II, grade C, class 5 (0.0005 inch thick).

*Not to be used without prior approval of procuring activity.

344	Tin plate, per MIL-T-10727, type I (electrodeposition), 0.0003 inch minimum.
345	Tin plate, per MIL-T-10727, type II (hot-dipped), 0.0003 inch minimum.
346	Solder, per MIL-S-46844 (tinning to meet requirements of MIL-P-46843) (printed circuit boards).
347	Rhodium plate, per MIL-R-46085, type I, class 2, 0.00001-0.00002 inch.
348	Rhodium plate, per MIL-R-46085, type II, class 3, 0.00002-0.0001 inch.
349	Copper plating, per MIL-C-14550, class 1, 0.001 inch minimum.
350	Copper Plating, per MIL-C-14550, class 2, 0.0005 (undercoat for nickel and other plating).
351	Copper Plating, per MIL-C-14550 class 3, 0.0002 (undercoat for nickel and other plating).
352	Copper Plating, per MIL-C-14550 class 4, 0.0001 (undercoat for nickel and other plating).
353	Gold plate, per MIL-G-45204, type I, grade A, class 3.

TABLE III, CONTINUED

Code No.

354 Gold plate, per MIL-G-45204, type I, grade A, class 4.

355 Gold Plate, per MIL-G-45204, type I, grade A, class 5.

356 Plating, soft nickel (electrodeposited, sulfanate bath), per MIL-P-27418 (0.002 inch).

357 Chromium plating, low embrittlement, electrodeposition per MIL-STD-1501.

358 Cadmium plating low embrittlement, electrodeposition per MIL-STD-870.

359 Tin-cadmium plate, per MIL-P-23408, class 1 (0.0005 inch thick).

360 Tin-cadmium plate, per MIL-P-23408, class 2 (0.0003 inch thick).

361 Tin-cadmium plate, per MIL-P-23408, class 3 (0.0002 inch thick).

362 Tin-lead plating per MIL-P-81728.

363 Cadmium coating, mechanically deposited, per MIL-C-81562, Material C, Type II, class 1, chromate supplementary treatment, 0.0005 inch min.

364 Cadmium coating, mechanically deposited, per MIL-C-81562, Material C, Type II, Class 2, chromate supplementary treatment, 0.0003 inch min.

365 Cadmium coating, mechanically deposited, per MIL-C-81562, Material C, Type II, Class 3, chromate supplementary treatment, 0.002 inch min.

Supersedes Page 39 of 10 Nov 75

TABLE III, CONTINUED

Code No.

366 Coating, metallic ceramic per MIL-C-81751 (type and class to be designated on drawing following the code number).

367 Coat aluminum, vacuum deposited, per MIL-C-23217, class 1.

368 Coat aluminum, vacuum deposited, per MIL-C-23217, class 2.

369 Aluminum coating (hot dip) for ferrous parts per MIL-A-40147.

370 Coating, aluminum and aluminum alloys (metallic compound decomposition) per MIL-C-81740 (class and type to be designated on drawing immediately after Code # 370).

371 Coating, inorganically bonded aluminum (electrophoretically deposited) per MIL-C-81797 (class to be designated on drawing immediately after Code #371).

372 Palladium plating, per MIL-P-45209, 0.00001 to 0.00002 inch.

373 Brush plating, electrodeposition per MIL-STD-865, (deposit and thickness to be designated on drawing immediately after code).

374 Electroless nickel plate, per MIL-C-26074, class 1, minimum thickness of 0.001 inch (Grade A) for iron and aluminum based alloys and 0.0005 inch (Grade B) for copper, nickel, cobalt, beryllium, and titanium based alloys.

375 Electroless nickel plate, per MIL-C-26074, class 2, minimum thickness of 0.001 inch (Grade A) (heat treated for extreme hardness).

376 Electroless nickel plate, per MIL-C-26074, class 3, Grade A thickness, (Aluminum alloys non-heat-treatable and beryllium alloys processed to improve adhesion of the nickel deposit.)

377 Electroless nickel plate, per MIL-C-26074, class 4, Grade A thickness (aluminum alloys, heat-treatable, processed to improve adhesion of the nickel deposit).

378 Electroless nickel plate, per MIL-C-26074, class 1, Grade C (0.0015 inch minimum for severe corrosion envionments).

TABLE III, CONTINUED

CODE NO.

380 Nickel-carbon plate, porous, per MIL-N-55392, gray (similar to color 36440 per FED-STD-595) over nickel, over initial undercoat of copper, for aluminum copper alloys, and steel.

381 Zinc plate per QQ-Z-325, Type II, Class 1 Supplementary chromate treatment, 0.0010 inch minimum.

382 Zinc plate per QQ-Z-325, Type II, Class 2 Supplementary chromate treatment, 0.0005 inch minimum.

383 Zinc plate per QQ-Z-325, Type II, Class 3 Supplementary chromate treatment, 0.0002 inch minimum.

384 Zinc plate per QQ-Z-325, Type III, Class 1 Supplementary phosphate treatment, 0.0010 inch minimum.

385 Zinc per QQ-Z-325, Type III, Class 2 Supplementary phosphate treatment, 0.0005 inch minimum.

386 Zinc per QQ-Z-325, Type III, Class 3 Supplementary phosphate treatment, 0.0002 inch minimum.

387 Zinc coating, hot dip, per ASTM A 153.

388 Aluminum coating ion vapor deposited MIL-C-83488, Type II, Class 1 Supplementary chromate treatment, 0.0010 inch minimum.

389 Aluminum coating ion vapor deposited MIL-C-83488, Type II, Class 2 Supplementary chromate treatment, 0.0005 inch minimum.

390 Aluminum coating ion vapor deposited MIL-C-83488, Type II, Class 3 Supplementary chromate treatment, 0.0003 inch minimum.

391 Gold plate in accordance with MIL-G-45204, Type II, Grade C, Class 1 (0.00005 inch thick).

TABLE IV - ORGANIC COATINGS

NOTE: Application and inspection shall meet requirements of section 5.5 and section 6 of this standard. This note applies to all finish codes 401 thru 497.

Code No.

401 Apply wash primer per DOD-P-15328, 0.3 to 0.5 mil dry film thickness.

402 Apply zinc chromate primer, TT-P-1757, one coat, 0.3 to 0.4 mil dry film thickness.

403 Apply zinc chromate primer, TT-P-1757, two coats, 0.6 to 0.8 mil dry film thickness.

404 Apply air-drying epoxy primer per MIL-P-52192, dry film thickness of 0.8-1.2 mil.

405 Apply two coats of air-drying primer per MIL-P-52192, dry film thickness of 1.6-2.4 mils.

406 Apply lacquer primer, MIL-P-11414, one coat (0.6 to 0.8 mil dry film thickness, for use with thermoplastics).

407 Apply one coat of air-drying epoxy primer MIL-P-23377, 0.8-1.2 mils.

408 Apply two coats of air-drying epoxy primer MIL-P-23377, 1.6-2.4 mils.

409 Use Code 448.

410 Use Code 402.

411 Use Code 448.

412 Use Code 448.

413 Use Code 448

Supersedes page 42 of 20 Jun 80

Code No.

414 Use Code 448.

415 Apply lusterless enamel TT-E-527, one coat (0.8-1.2 mils), color olive drab 34087 per FED-STD-595. Color other than olive drab shall be delineated on the drawing immediately following the code 415.

416-419 Reserved for future use.

420 Apply lusterless enamel TT-E-527, two coats (1.6-2.4 mils), color olive drab 34087 per FED-STD-595. Color other than olive drab shall be delineated on the drawing immediately following the code 420.

421-424 Reserved for future use.

425 Apply semigloss enamel TT-E-529, one coat (0.8-1.2 mils), color olive drab 24087 per FED-STD-595. Color other than olive drab shall be delineated on the drawing immediately following the code 425.

426-436 Reserve for future use.

437 Apply semigloss enamel TT-E-529, two coats (1.6-2.4 mils), color olive drab 24087 per FED-STD-595. Color other than olive drab shall be delineated on the drawing immediately following the code 437.

438 Apply polyurethane aliphatic, weather resistant camouflage coating per MIL-C-83286, one coat (1.0 to 1.2 mils), color and code number per FED-STD-595 shall be delineated on the drawing immediately following the enamel code 438.

439 Apply polyurethane, aliphatic, weather resistant camouflage coating per MIL-C-83286, two coats (1.6 to 2.4 mils). Color and code number per FED-STD-595 shall be delineated on the drawing immediately following the enamel code 439.

440 Apply polyurethane, aliphatic weather resistant, semigloss coating per MIL-C-83286, one coat, 1.0 to 1.2 mils. Color and code number per FED-STD-595 shall be delineated on the drawing immediately following the enamel code 440.

Code No.

441 Apply polyurethane, aliphatic, weather resistant semigloss coating per MIL-C-83286, two coats, 1.6 to 2.4 mils. Color and code number per MIL-STD-595 shall be delineated on the drawing immediately following the enamel code 441.

442 Apply polyurethane, aliphatic weather resistant gloss coating per MIL-C-83286, one coat (1.0 to 1.2 mils) color and code number per MIL-STD-595 shall be delineated on the drawing immediately following the enamel code 442.

443 Apply polyurethane, aliphatic weather resistant gloss coating per MIL-C-83286, two coats (1.6 to 2.4 mils). Color and code number per MIL-STD-595 shall be delineated on the drawing immediately following the enamel code 443.

444 Use Code 445

445 Use Code 448

446 Use Code 447

447 Use Code 448

448 Apply polyurethane, aliphatic, chemical agent resistant, coating per MIL-C-46168, two coats,1.8-2.4 mils, color forest green. Color other than forest green shall be delineated on the drawing immediately following the code.

449 Use Code 448.

450-460 Reserved for future use.

461 Use Code 448

Supersedes page 44 of 20 Jun 80.

Code No.	
462-472	Reserved for future use.
473	Use Code 448
474-484	Reserved for future use.
485	Apply epoxy-polyamide coating, MIL-C-22750, Type I, one coat, 0.8 - 1.2 mils. Color number per FED-STD-595 shall be designated on the drawing immediately following the code.
486	Apply epoxy-polyamide coating, MIL-C-22750. Type I, two coats, 1.6-2.4 mils. Color number per FED-STD-595 shall be designated on the drawing immediately following the code.
487	Use Code 485
488	Use Code 486
489	Luminescent material and equipment (non radioactive), MIL-L-3891. Type, form, and color shall be designated on the drawing immediately following code 489.
490	Luminescent material, fluorescent, MIL-L-25142. Class and type shall be designated on the drawing immediately following the code 490.
491	Walkway compound, nonslip and walkway matting, nonslip, MIL-W-5044. Type and color shall be designated on the drawing immediately following the code 491.

Supersedes page 45 of 10 Nov 75.

Code No.

492	Walkway coating and matting, nonslip, aircraft application of, MIL-W-5050. Type shall be designated on the drawing immediately following the code 492.
493-494	Reserved for future use.
495	Acid-resistant lacquer, TT-L-54, type I (black, 17038, per FED-STD-595, 0.8 to 1.2 mils dry film thickness).
496	Alkali-resistant vinyl enamel, MIL-E-16738 (White, 0.8 to 1.2 mils dry film thickness).
497	Moisture-and-fungus resistant varnish, MIL-V-173, Composition I or II as applicable, per MIL-T-152 (1.3 to 1.7 mils dry film thickness).

TABLE VI - ENCAPSULANTS AND POTTING COMPOUNDS

Code No.	Coating
601	Insulating compound, MIL-I-16923, electrical embedding
602	Potting compound, MIL-M-24041, polyurethane (non-carcinogenic).
603	Conformal coating, MIL-I-46058, printed circuit board, type ER, epoxy.
604	Conformal coating, MIL-I-46058, printed circuit board, type UR, polyurethane.
605	Conformal coating, MIL-I-46058, printed circuit board, type SR, silicone.
606	Conformal coating, MIL-I-46058, printed circuit board, type XY, paraxylylene.
607	Encapsulating foam, MIL-P-46847, polyurethane, for electronic components, type shall be specified on the drawing immediately following the code 607.

TABLE VII - LUBRICATION AND PRESERVATION

CODE NO.	Treatment
701	Corrosion preventive compound, MIL-C-16173, grade 1 (hard film)
702	Corrosion preventive compound, MIL-C-16173, grade 2 (soft film)
703	Apply medium preservative lubricating oil, MIL-L-3150.
704	Apply lubricating oil, general purpose, VV-L-800, water displacing, low temperature.
705	Use Code 706.
706	Apply corrosion preventive compound, MIL-C-81309, water displacing, ultra-thin; grade to be designated on drawing.
707	Apply lubricating grease, MIL-G-10924.
708	Apply lubricant, dry film, MIL-L-46010, bake-type.
709	Apply lubricant, dry film, MIL-L-46147, air-drying.
710	Apply lubricating oil, VCI, MIL-L-46002. Specify grade on the drawing immediately following code 710.
711	Use solid, VCI corrosion inhibitor, MIL-I-22110, per MIL-I-8574, Type I or II as applicable.
712	Apply antiozonant, MIL-D-50000.

Supersedes page 50 of 10 Nov 75.