

DEFENSE & CIVILIAN SPECIFICATIONS*

The following listing has been compiled from the latest available edition of the Department of Defense Index of Specifications and Standards (DODISS), which includes unclassified Federal and Military specifications, standards, and related documents as well as non-government standards adopted for DOD use. Note: Only "active" files are included here.

ALUMINUM & ALUMINUM ALLOYS

AMS2477—Conversion Coating for Aluminum Alloys, Low Electrical Resistance
ASTM-B136-84(2003)—Standard Method for Measurement of Stain Resistance of Anodic Coatings on Aluminum
ASTM-B253-87(2005)e1—Standard Guide for Preparation of Aluminum Alloys for Electroplating
ASTM-B449-93(2004)—Standard Specification for Chromates on Aluminum
ASTM-B921-02—Standard Specification for Non-hexavalent Chromium Conversion Coatings on Aluminum and Aluminum Alloys
ASTM-D1730-09—Standard Practices for Preparation of Aluminum and Aluminum-Alloy Surfaces for Painting
ASTM-D1731-09—Standard Practices for Preparation of Hot-Dip Aluminum Surfaces for Painting
MIL-A-8625F (1)—Anodic Coatings for Aluminum & Aluminum Alloys
MIL-DTL-512C NOT 1—Aluminum Powder, Flaked, Atomized
MIL-DTL-5541F—Chemical Conversion Coatings on Aluminum/Alloys
MIL-DTL-83488D—Aluminum Coating (High Purity)
MIL-HDBK-341—Process for Coating Aluminum & Silicon Diffusion
MIL-M-17999C NOT 1—Metal, Expanded, Aluminum

BLACK OXIDE

AMS2485J—Coating, Black Oxide
MIL-DTL-13924D NOT-1 Black Oxide Coating for Ferrous Metals

CARC COATINGS

MIL-DTL-53039B—Aliphatic Polyurethane, Single Component, Chemical Agent Resistant Coating
MIL-DTL-53072C—Application of CARC Coating; Quality Controls
MIL-DTL-53084A—Primer, Cathodic Electrodeposition (CARC)
MIL-DTL-64159—Water Dispersible Aliphatic Polyurethane, Chemical Agent Resistant Coating

CHROMIUM AND CHROMIUM ALLOY PLATING

AMS2438B—Chromium Plating: Thin, Hard, Dense Deposit
ASTM B177-01(2006)e1—Standard Guide for Engineering Chromium Electroplating
ASTM-B630-88(2006)—Standard Practice for Preparation of Chromium for Electroplating with Chromium
ASTM-B650-95(2002)—Standard Specification for Electrodeposited Engineering Chromium Coatings on Ferrous Substrates
ASTM-B921-02—Standard Specification for Non-hexavalent Chromium Conversion Coatings on Aluminum and Aluminum Alloys
MIL-C-20218F NOT 1—This specification covers porous, electrodeposited chromium plating applied to surfaces where a lubricating film must be sustained, such as cylinder bores.
MIL-DTL-14538D NOT 1—Chromium Plating, Black (Electrodeposited). Generally applied to steels but may be used as a plating for other metals such as brass, copper, iron, and chromium.
MIL-DTL-23422F—Chromium Plating (Electrodesposited)

CLEANING & SURFACE PREPARATION

AMS1377—Remover for Paint Epoxy and Polyurethane Paint System Non-

Chlorinated Solvent

AMS1375B—Remover for Paint, Epoxy and Polyurethane Paint Systems
AMS1374A—Remover for Polyurethane/Epoxy Paint Alkaline, Hot-Tank Type
AMS1385A—Compound, Hot Carbon and Paint Remover for Aircraft Turbine Engine Components
AMS2480—Phosphate Treatment Paint Base
AMSC27725—Coating, Corrosion Preventative for Aircraft Integral Fuel Tanks
AMSC83231A—Coatings, Polyurethane, Rain Erosion Resistant for Exterior Aircraft and Missile Plastic Parts
AMSC83445A—Coating System: Polyurethane, Non-yellowing, White, Rain Erosion Resistant, Thermally Reflective
AMSR81903— Acid Activated Remover for Amine-Cured Epoxy Coating Systems
AMS1388A—Remover for Temporary Coating Alkaline Type, Water Base
AMS1376B—Remover for Epoxy Paint Acid-Type, Thickened
AMS3167—Solvents, Wipe for Cleaning Prior to Primer & Topcoat
AS7109/4—NADCAP Requirements for Stripping of Coated Material
AMSP38336—Primer Coating, Inorganic, Zinc Dust Pigmented, Self-Curing, for Steel Surfaces
ASTM-A967-05e1—Standard Specification for Chemical Passivation Treatments for Stainless Steel Parts
ASTM-B322-99(2004)—Standard Guide for Cleaning Metals Prior to Plating
ASTM-B851-04—Standard Specification for Automated Controlled Shot Peening of Metallic Articles Prior to Nickel, Autocatalytic Nickel, or Chromium Plating, or as Final Finish
ASTM-D7055-04—Standard Practice for Preparation (by Abrasive Blast Cleaning) of Hot-Rolled Carbon Steel Panels to Test Coatings
DOD-P-15328D(1) NOT 1—Primer, Pretreatment for Metal Surfaces
MIL-B-23958A(1)—Metal Brightening for Aircraft (Brush, Cleaning)
MIL-C-8514C(1)—Coating Compound Metal Pretreatment Resin Acid
MIL-C-43616C(2)—Cleaning Compounds Aircraft Surface
MIL-C-46487 NOT2—Cleaning & Preparation, Organic Coatings
MIL-DTL-053022C—Primer, Epoxy Coating (Lead, Chromate Free)
MIL-P-53022B—Primer: Epoxy Coating (Chromate free)
MIL-P-81985(1)—Peening of Metals
MIL-P-85499—Primer Material
MIL-P-85891A(2)—Plastic Media (For Removal of Organic Coatings)
MIL-PRF-6864E—Cleaning Compound, Solvent, Oil Cooler
MIL-PRF-9954B—Glass Beads for Cleaning & Peening
MIL-PRF-11090H(1)—Degreasing & Depreserving Solvent
MIL-PRF-26915D—Primer (Coating Steel)
MIL-PRF-83756D—Blast Cleaning Machines
MIL-PRF-83936C—Paint Remover (Aircraft Wheels & Landing Gear Components)
MIL-PRF-85582D(1)—Primer Coatings: Epoxy, Waterborne
MIL-PRF-87937D—Cleaning Compound (Aerospace Equipment)
MIL-PRF-87978A—Paint Remover (Aircraft Wheels & Landing Gear Components)
TT-P-1757B—Primer Coating: One-Component Alkyd Base
TT-P-2760A—Primer Coating: Polyurethane, High Solids
TT-R-2918A-NOT 1—Paint Removal (No Hazardous Air Pollutants)

COATING MATERIALS, METHODS

A-A-59166—Coatings for Non-Slip Walkways on Aircraft Surfaces
AMS2447C—Thermal Spray Coating, High Velocity Oxygen/Fuel Process
AMS2526B—Molybdenum Disulfide Coating, Thin Lubricating Film, Impingement Applied
AMS2506—Coating of Fasteners, Aluminum Filled, Ceramic Bonded Coating
AMS2516D—Polytetrafluoroethylene (ptfe) Resin Coating, High Build, 370-400Mdc (698-752Mdf) Fusion
AMS2515E—Polytetrafluoroethylene (ptfe) Resin Coating, Low Build, 370-400Mdc (698-752Mdf) Fusion
AMS3678B—Polytetrafluoroethylene (PTFE) Moldings and Extrusions, Unfilled, Pigmented, and Filled Components

AMS3095A—Paint: High Gloss for Airline Exterior System
AMS3120F—Glyceryl Phthalate, Black Baking Enamel
AMS3125F—Glyceryl Phthalate, Engine Gray Baking Enamel Impingement Applied
AMS3143—Powder Coating Materials, Epoxy
AMS3145C—Paint, Marking Epoxy
AMS2525C—Graphite Coating: Thin Lubricating Film Impingement Applied
AMS2437C—Coating: Plasma Spray Deposition
AMS3143A—Powder Coating Materials, Epoxy
AMSP21600—Paint System, Fluorescent, Removable, for Aircraft Application
AMS3108E—Primer, Ocher, Phenolic
AMS3116—Primer Coating Epoxy, Chemical & Solvent Resistant, Non-Chromate
AMS3138D—Fluorocarbon Elastomeric Coatings (various)
AMS3136E—Coating Material: Phenolic Resin, ptfе Filled Pigmented, 150Mdc (302Mdf) Cure
AMS3130F—Vehicle Paint, Glyceryl Phthalate
AMS3140—Coating: Urethane, Aliphatic Isocyanate, Polytetrafluoroethylene Filled
AMSC83231—Coatings, Polyurethane, Rain Erosion Resistant, Aircraft & Missiles
AS4984—Coating Requirements for Aerospace Hand Tools
AS133341—Process for Barrier Coating of Anti-Friction Bearings
ASTM-D16-07—Standard Terminology for Paint, Related Coatings, Materials, and Applications
MIL-C-17504B(2)—Coating Compound (Acrylic Clear)
MIL-C-83466 NOT-1—Polyurethane Coatings for Aircraft Applications
MIL-C-85322B(2)—Elastomeric Polyurethane Coating for Rain-Erosion
MIL-DTL-24631—(1C, 2B, 3B) Epoxy Paint for Navy Coating Formulas
MIL-HDBK-808—Finishing for Protective Ground Support Equipment
MIL-HDBK-1110/1—Handbook for Protective Coatings for Facilities
MIL-HDBK-1884—Plasma Spray Coating Deposition
MIL-P-14105D—Heat-Resistant Paint for Steel Surfaces
MIL-P-85089A—Painting Aircrew Escape Propulsion Systems
MIL-PRF-6799K—Sprayable, Strippable Coatings
MIL-PRF-19565C(1)—Coating Compounds (Thermal Insulation)
MIL-PRF-22750F—Coating Epoxy, High Solids
MIL-PRF-24712A(1)—Powder Coatings
MIL-PRF-32239—Coating Systems, Advanced Aerospace Applications
MIL-PRF-81352C—Aircraft Touch-up
MIL-PRF-85285D(1)—Polyurethane Coating for Aircraft & Support Equipment
MIL-STD-7179—Finishes, Coatings to Protect Aerospace Weapons Systems
TT-C-490E—Chemical Conversion Coatings & Pretreatments for Ferrous Surfaces, Base for Organic Coatings
TT-P-2756A—Polyurethane Coating, Self Priming Top Coat (Low VOC)

COBALT ALLOYS

MIL-C-24248B(1) NOT 1—Cobalt Alloy Castings, Wear- and Corrosion-Resistant
MIL-C-24252D—Cobalt Chromium Alloy Bars & Forgings
MIL-C-24689B—Cobalt Alloy Castings (Wear, Corrosion-Resistant)

COPPER

ASTM-B281-88(2001)—Standard Practice for Preparation of Copper and Copper-Base Alloys for Electroplating and Conversion Coatings
ASTM- B368-97(2003)e1—Standard Method for Copper-Accelerated Acetic Acid-Salt Spray (Fog) Testing (CASS Test)
ASTM-B734-97(2003)e1—Standard Specification for Electrodeposited Copper for Engineering Uses
MIL-C-16555D—Coating Compounds (Strippable, Sprayable)
MIL-C-24679—Copper Nickel Alloy Forgings
MIL-F-495E(1) NOT 2—Chemical Finish for Black, Copper Alloys

MIL-HDBK-698A NOT 1—Copper & Copper Alloy

CORROSION PREVENTION, COMPOUNDS

AMS3116A—Primer Coating: Epoxy, Chemical and Solvent Resistant Non-Chromated, Corrosion Preventive

AMSC27725A—Coating: Corrosion Preventive, Polyurethane for Aircraft Integral Fuel Tanks for Use to 250 Mdf (121 Mdc)

MIL-C-11796C—Corrosion Preventive Compound (Hot Application)

MIL-HDBK-729 NOT 1—Corrosion & Corrosion Prevention Metals 850

MIL-HDBK-1568—Materials & Processes for Corrosion Prevention in Aerospace Weapons Systems

MIL-HDBK-46164 NOT 1—Sealing & Coating Compounds (Corrosion Inhibitive)

MIL-PRF-81733D—Sealing & Coating Compound (Corrosion Inhibitive)

GOLD

ASTM-B488-01(2006)—Standard Specification for Electrodeposited Coatings of Gold for Engineering Uses

MIL-DTL-45204D—Gold Plating (Electrodeposited)

IRON OXIDE

MIL-I-85370—Iron Oxide, Yellow (Monohydrate)

MAGNESIUM ALLOYS

AMS2466A—Hard Anodic Coating of Magnesium Alloys Alkaline Type, High Voltage

ASTM-B480-88(2006)—Standard Guide for Preparation of Magnesium and Magnesium Alloys for Electroplating

ASTM-B879-97(2003)e1—Standard Practice for Applying Non-Electrolytic Conversion Coatings on Magnesium and Magnesium Alloys

ASTM-B893-98(2003)—Specification for Hard-Coat Anodizing of Magnesium for Engineering Applications

ASTM-D1732-03—Standard Practices for Preparation of Magnesium Alloy Surface for Painting

MIL-HDBK-305 NOT 1—Alloy for Temper Designation System

MIL-HDBK-693A NOT 1—Magnesium & Magnesium Alloy

MIL-M-46130(1) NOT 1—Magnesium-Lithium Alloy Plate, Sheet, & Forgings

MOLYBDENUM & MOLYBDENUM ALLOYS

ASTM-B629-77(2003)—Standard Practice for Preparation of Molybdenum and Molybdenum Alloys for Electroplating

NICKEL & NICKEL ALLOYS

ASTM-B343-92a(2004)e1—Standard Practice for Preparation of Nickel for Electroplating with Nickel

ASTM-B558-79(2003)—Standard Practice for Preparation of Nickel Alloys for Electroplating

ASTM-B733-04—Standard Specification for Autocatalytic (Electroless) Nickel-Phosphorus Coatings on Metal

MIL-C-24615A—Nickel Chromium-Columbium Alloy

MIL-C-24723—Nickel Copper Alloy Castings

MIL-DTL-23229E—Nickel Chromium Iron Alloy Bars & Forgings

MIL-DTL-32119—Electroless Nickel Coatings

MIL-HDBK-506—Process for Coating Chrome Aluminide

MIL-N-24106C & MIL-N-24549B(1)—Nickel-Copper Alloy Bars, Rods, & Forgings

MIL-N-24271A NOT 1—Nickel-Chromium-Iron Alloy Castings

MIL-N-24390B(1) NOT 1—Nickel Molybdenum Chromium Iron Sheet & Low-Carbon, Low-Silicon Nickel Molybdenum-Chromium-Iron Plate

MIL-P-27418 NOT 3—Plating of Soft Nickel (Electrodeposited, Sulfamate Bath)

MIL-P-18317—Plating of Black Nickel on Brass, Bronze, or Steel (Plated)

PALLADIUM

ASTM-B679—Plating w/Palladium (Electrodeposited)

ASTM-B679-98(2004)e1—Standard Specification for Electrodeposited Coatings of Palladium for Engineering Use

ASTM-B867-95(2003)—Standard Specification for Electrodeposited Coatings of Palladium-Nickel for Engineering Use

PHOSPHATE COATINGS

MIL-DTL-16232G—Phosphate Coating: Heavy, Manganese or Zinc Base

MIL-HDBK-205A—Phosphatizing and Black Oxide Coating of Ferrous Metals

PLATING ON PLASTICS

ASTM-B532-85(2002)—Standard Specification for Appearance of Electroplated Plastic Surfaces

ASTM-B533-85(2004)—Standard Test Method for Peel Strength of Metal Electroplated Plastics

ASTM-B604-91(2003)e1—Standard Specification for Decorative Electroplated Coatings of Copper, Plus Nickel & Chromium on Plastics

ASTM-B727-04—Standard Practice for Preparation of Plastics Materials for Electroplating

RHODIUM

ASTM-B634-88(2004)e1—Standard Specification for Electrodeposited Coatings of Rhodium for Engineering Use

SILVER

ASTM-B700-97(2002)—Standard Specification for Electrodeposited Coatings of Silver for Engineering Use

STEEL

ASTM-B183-79(2004)e1—Standard Practice for Preparation of Low-Carbon Steel for Electroplating

ASTM-B242-99(2004)e1—Standard Guide for Preparation of High-Carbon Steel for Electroplating

ASTM-B254-92(2004)e1—Standard Practice for Preparation of and Electroplating on Stainless Steel

ASTM-B850-98(2004)—Standard Guide for Post-Coating Treatments of Steel for Reducing the Risk of Hydrogen Embrittlement

ASTM-B912-02—Standard Specification for Passivation of Stainless Steels Using Electropolishing

MIL-C-24637—Corrosion-Resistant Steel Castings (Martensitic)

TESTING

ASTM-B117-07a—Standard Practice for Operating Salt Spray Apparatus (Accelerated Corrosion Test)

ASTM-B201-80(2004)—Standard Practice for Testing Chromate Coatings on Zinc and Cadmium

ASTM-B244-97(2002)—Standard Test Method for Measurement of Thickness of Anodic Coatings on Aluminum and of Other Nonconductive Coatings on Nonmagnetic Basis Metals with Eddy-Current Instruments

ASTM-B457-67(2003)—Standard Test Method for Measurement of Impedance of Anodic Coatings on Aluminum

ASTM-B487-85(2007)—Standard Test Method for Measurement of Metal and Oxide Coating Thickness by Microscopical Examination of a Cross Section

ASTM-B489-85(2003)—Standard Practice for Bend Test for Ductility of Electrodeposited and Autocatalytically Deposited Metal Coatings on Metals

ASTM-B499-96(2002)—Standard Test Method for Measurement of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals

ASTM-B504-90(2007)—Standard Test Method for Measurement of Thickness of Metallic Coatings by the Coulometric Method

ASTM-B537-70(2002)e1—Standard Practice for Rating of Electroplated Panels Subjected to Atmospheric Exposure
ASTM-B555-86(2007)—Standard Guide for Measurement of Electrodeposited Metallic Coating Thicknesses by Dropping Test
ASTM-B567-98(2003)—Standard Test Method for Measurement of Coating Thickness by the Beta Backscatter Method
ASTM-B568-98(2004)—Standard Test Method for Measurement of Coating Thickness by X-Ray Spectrometry
ASTM-B571-97(2003)—Standard Practice for Qualitative Adhesion Testing of Metallic Coatings
ASTM-B578-87(2004)—Standard Test Method for Micro-hardness of Electroplated Coatings
ASTM-B588-88(2006)—Standard Test Method for Measurement of Thickness of Transparent or Opaque Coatings by Double-Beam Interference Microscope Technique
ASTM-B602-88(2005)—Standard Test Method for Attribute Sampling of Metallic and Inorganic Coatings
ASTM-B636-84(2006)e1—Standard Test Method for Measurement of Internal Stress of Plated Metallic Coatings with the Spiral Contractometer
ASTM-B680-80(2004)—Standard Test Method for Seal Quality of Anodic Coatings on Aluminum by Acid Dissolution
ASTM-B764-04—Standard Test Method for Simultaneous Thickness and Electrode Potential Determination of Individual Layers in Multilayer Nickel Deposit (STEP Test)
ASTM-B767-88(2006)—Standard Guide for Determining Mass Per Unit Area of Electrodeposited and Related Coatings by Gravimetric and Other Chemical Analysis Procedures
ASTM-B809-95(2003)—Standard Test Method for Porosity in Metallic Coatings by Humid Sulfur Vapor (“Flowers-of-Sulfur”)
ASTM-B839-04—Standard Test Method for Residual Embrittlement in Metallic Coated, Externally Threaded Articles, Fasteners, and Rod—Inclined Wedge Method
ASTM-B877-96(2003)—Standard Test Method for Gross Defects and Mechanical Damage in Metallic Coatings by the Phosphomolybdic Acid (PMA) Method
ASTM-B905-00(2005)—Standard Test Methods for Assessing the Adhesion of Metallic and Inorganic Coatings by the Mechanized Tape Test
ASTM-C756-87(2006)—Standard Test Method for Cleanability of Surface Finishes
ASTM-D268-01(2007)—Standard Guide for Sampling and Testing Volatile Solvents and Chemical Intermediates for Use in Paint and Related Coatings and Materials
ASTM-D609-00(2006)—Standard Practice for Preparation of Cold-Rolled Steel Panels for Testing Paint, Varnish, Conversion Coatings, and Related Coating Products
ASTM-D662-93(2005)—Standard Test Method for Evaluating Degree of Erosion of Exterior Paints
ASTM-D2201-99—Standard Practice for Preparation of Zinc Coated & Zinc Alloy Coated Steel Panels for Testing Paint
ASTM-D2369-07—Standard Test Method for Volatile Content of Coatings
ASTM-D3322-82(2005)—Standard Practice for Testing Primers and Primer Surfacer Over Preformed Metal
ASTM-D4146-96(2003)—Standard Test Method for Formability of Zinc-Rich Primer/Chromate Complex Coatings on Steel
ASTM-D4548-91 (2009)—Standard Test Method for Anion-Cation Balance of Mixed-Bed Ion Exchange Resins
ASTM-D5065-07—Standard Guide for Assessing the Condition of Aged Coatings on Steel Surfaces
MIL-HDBK-728/1 NOT 1—Non-Destructive Testing

THINNERS

MIL-T-81772B(1)—Requirements for Three Types of Thinner to be Used in Reducing Aircraft Coatings

TIN & TIN ALLOYS

ASTM-B545-97(2004)e1—Standard Specification for Tin Coatings (Plated)

ASTM-B579-73(2004)—Standard Specification for Electrodeposited Coatings of Tin-Lead Alloy (Solder Plate)

ASTM-B605-95a(2004)—Standard Specification for Electrodeposited Coatings of Tin-Nickel Alloy

TITANIUM & TITANIUM ALLOYS

MIL-HDBK-697A NOT 1—Finishing Titanium & Titanium Alloys

TUNGSTEN & TUNGSTEN ALLOYS

ASTM-B481-68(2003)e1—Standard Practice for Preparation of Titanium and Titanium Alloys for Plating

ASTM-B482-85(2003)—Standard Practice for Preparation of Tungsten and Tungsten Alloys for Electroplating

ZINC & ZINC ALLOY

AMSC81562—Zinc Coatings (Mechanically Deposited)

ASTM-B252-92(2004)—Standard Guide for Preparation of Zinc Alloy Die Castings for Electroplating and Conversion Coatings

ASTM-B633-07—Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel

ASTM-B840-99(2004)—Standard Specification for Electrodeposited Coatings for Zinc Cobalt Alloy Deposits

ASTM-B841-99(2004)—Standard Specification for Electrodeposited Coatings for Zinc Nickel Alloy Deposits

ASTM-B842-99(2005)—Standard Specification for Electrodeposited Coatings for Zinc Iron Alloy Deposits

MIL-C-17711B—Chromate Coatings for Zinc Alloy Castings & Hot-Dip Galvanized Surfaces

**Active documents as of 11/1/12. Inactive specifications are omitted; superseding files for cancelled documents are noted where applicable. To download full PDFs, or to view a complete listing of specifications, visit the Department of Defense Index of Specifications at <https://assist.daps.dla.mil/online/start/>; www.sae.org for AMS Standardss; or www.astm.org for ASTM documents.*