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Superseding AS5272B

Lubricant, Solid Film, Heat Cured,
Corrosion Inhibiting
Procurement Specification

RATIONALE

Revise paragraph 3.1 to extend QPL effective date from December 31, 2007 to June 30, 2008 in support of supplier testing delays.

1. SCOPE

This SAE Aerospace Standard (AS) establishes the requirements for heat cured solid film lubricants. For other general or high temperature applications, see AS1701.

1.1 Application

For applications where temperatures may range from -90 to 400 °F (-68 to 204 °C).

1.2 Type

This specification establishes the following types:

Type I: A lubricant capable of being cured within 60 min at 302 °F ± 27 °F (150 °C ± 15 °C) with an endurance life of 250 min minimum. See 6.4 for related product information.

Type II: A lubricant capable of being cured within 60 min at 400 °F ± 27 °F (204 °C ± 15 °C) with an endurance life of 450 min minimum. See 6.4 for related product information.

Type III: A low volatile organic compound (VOC) content lubricant capable of being cured within 120 min at 302 °F ± 27 °F (150 °C ± 15 °C) or within 60 min at 400 °F ± 27 °F (204 °C ± 15 °C) with an endurance life of 450 min minimum. Type III shall be used when performance is satisfactory for the desired application to meet VOC emission regulations.

Color 1 - Natural product color.

Color 2 - Black color. See 3.7.

See 6.4 for related product information.

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1.3 Safety - Hazardous Materials

While the materials, methods, applications, and processes described or referenced in this specification may involve use of hazardous materials, this specification does not address the hazards which may be involved in such use. The product manufacturer shall prepare Materials Safety Data Sheets (MSDS) in accordance with AMS 2825 and abide by MSDS requirements to ensure familiarity with the safe and proper handling of hazardous materials used and take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or 724-776-4970 (outside USA), www.sae.org.

AMS-QQ-A-250/5	Aluminum Alloy, Alclad 2024, Plate and Sheet
AMS 1424	Deicing/Anti-Icing Fluid, Aircraft, SAE Type I
AMS 2825	Material Safety Data Sheets
AS1701	Lubricant, Solid Film
AS5528	Lubricant Application, Solid Film, Heat Cured, Corrosion Inhibiting
AS9100	Quality Management Systems - Aerospace - Requirements

2.2 AIA Publications

Available from Aerospace Industries Association, 1000 Wilson Boulevard, Suite 1700, Arlington, VA 22209-3928, Tel: 703-358-1000, www.aia-aerospace.org.

NAS850	General Packaging Standard
NAS854	Hazardous Material Packaging and Safety Data Sheet Preparation

2.3 U.S. Government Publications

Available from the Document Automation and Production Service (DAPS), Building 4/D, 700 Robbins Avenue, Philadelphia, PA 19111-5094, Tel: 215-697-6257, <http://assist.daps.dla.mil/quicksearch/>.

MIL-PRF-372	Cleaning Compound, Solvent for Bore of Small Arms and Automatic Aircraft Weapons
FED-STD-595	Colors used Government Procurement
FED-STD-791	Lubricants, Liquid Fuels, and Related Products, Methods of Testing
VV-D-1078	Damping Fluid, Silicone Base (Dimethyl Polysiloxane)
MIL-A-8625	Anodic Coatings, for Aluminum and Aluminum Alloys

MIL-PRF-14107	Lubricating Oil, Weapons, Low Temperature
MIL-DTL-16232	Phosphate Coatings, Heavy, Manganese or Zinc Base (for Ferrous Metals)
MIL-PRF-23699	Lubricating Oil, Aircraft Turbine Engine, Synthetic Base, NATO Code Number 0-156
MIL-L-46000	Lubricant, Semi-Fluid, (Automatic Weapon)
MIL-PRF-46010F	Lubricant, Solid Film, Heat Cured, Corrosion Inhibiting
MIL-PRF-63460	Lubricant, Cleaner and Preservative for Weapons and Weapon Systems
MIL-C-81302	Cleaning, Compound, Solvent, Trichlorotrifluoroethane
MIL-T-81533	Trichloroethane 1,1,1, (Methyl Chloroform) Inhibited, Vapor Degreasing
MIL-DTL-83133	Turbine Fuel, Aviation, Kerosene Types
MIL-PRF-83282	Hydraulic Fluid, Fire Resistant, Synthetic Hydrocarbon Base, Metric, NATO Code Number H-537
MIL-PRF-85336	Lubricant, All Weather (Automatic Weapons)

Available from www.osha.gov.

HSC 29 CFR 1910.1200 Hazard Communication, Toxic and Hazardous Substances

2.4 ASTM Publications

Available from ASTM International, 100 Barr Harbor Drive, P.O. Box C700, West Conshohocken, PA 19428-2959, Tel: 610-832-9585, www.astm.org.

ASTM A 108	Standard Specification for Steel Bars, Carbon, Cold-Finish, Standard Quality
ASTM A 167	Standard Specification for Stainless and Heat-Resisting Chromium-Nickel-Steel Plate, Sheet and Strip
ASTM B 117	Standard Practice for Operating Salt Spray (Fog) Test Apparatus
ASTM B 244	Standard Test Method for Measurement of Thickness of Anodic Coatings on Aluminum and Other Nonconductive Coatings on Nonmagnetic Basis Metals with Eddy Current Instruments
ASTM B 499	Standard Test Method for Measurements of Coating Thicknesses by the Magnetic Method: Nonmagnetic Coatings on Magnetic Basis Metals
ASTM D 56	Standard Test Method for Flash Point by Tag Closed Tester
ASTM D 1141	Standard Practice for Preparation of Substitute Ocean Water
ASTM D 1186	Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to a Ferrous Base
ASTM D 1193	Standard Specification for Reagent Water
ASTM D 1400	Standard Test Method for Nondestructive Measurement of Dry Film Thickness of Nonconductive Coatings Applied to a Nonferrous Metal Base