



AEROSPACE MATERIAL SPECIFICATION

AMS3075™**REV. F**

Issued 1943-04
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Reaffirmed 2021-08

Superseding AMS3075E

Compound, Corrosion-Preventive
Hard Film, Hot Application

RATIONALE

AMS3075F has been reaffirmed to comply with the SAE five-year review policy.

1. SCOPE:

1.1 Form:

This specification covers a stable, nonvolatile, petroleum-base compound in a form suitable for application by dipping at 170 to 210 °F (77 to 99 °C).

1.2 Application:

This compound has been used typically for preservation of metal parts, tools, assemblies, and equipment during shipment and storage where a compound readily removable without component damage is required, but usage is not limited to such applications.

1.3 Safety - Hazardous Materials:

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS:

The issue of the following documents in effect on the date of the purchase order form a part of this specification to the extent specified herein. The supplier may work to a subsequent revision of a document unless a specific document issue is specified. When the referenced document has been canceled and no superseding document has been specified, the last published issue of that document shall apply.

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Documents
Document Sharing Hub

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 3160	Solvent, Petroleum
AMS 4037	Aluminum Alloy Sheet and Plate, 4.4Cu - 1.5Mg - 0.60Mn (2024; - T3 Flat Sheet, - T351 Plate), Solution Heat Treated
AMS 5044	Steel Sheet and Strip, 0.15 Carbon, maximum, Half Hard Temper

2.2 ASTM Publications:

Available from ASTM, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959.

ASTM B 117	Operating Salt Spray (Fog) Testing Apparatus
ASTM D 92	Flash and Fire Points by Cleveland Open Cup
ASTM D 127	Drop Melting Point of Petroleum Wax, Including Petrolatum
ASTM D 217	Cone Penetration of Lubricating Grease
ASTM D 1748	Rust Protection by Metal Preservatives in the Humidity Cabinet

3. TECHNICAL REQUIREMENTS:

3.1 Setting:

Compound applied to metal parts shall set to a firm, hard film within 24 hours at 68 to 86 °F (20 to 30 °C) and, after 120 hours standing, shall not have checked or cracked exposing the metal surface underneath.

3.1.1 Toxicity: Compound shall not contain materials of known toxicity. The vapor shall not cause discomfort or injury to workmen engaged in application of the compound.

3.1.2 Abrasiveness: Compound shall not contain abrasive substances.

3.2 Properties:

Compound shall conform to the requirements shown in Table 1 and 3.2.5 through 3.2.14; tests shall be conducted in accordance with specified test methods:

TABLE 1 - Properties

Property	Value	Test Method
3.2.1 Melting Point	150 to 170 °F (66 to 77 °C)	ASTM D 127
3.2.2 Flash Point, minimum	350 °F (177 °C)	ASTM D 92
3.2.3 Consistency	30 to 90	ASTM D 217
3.2.4 Nonvolatile Matter by weight, minimum	99.0%	4.5.1

- 3.2.5 Stability: Compound shall remain homogeneous with age, determined in accordance with 4.5.2.
- 3.2.6 Application and Removability: Compound shall form a continuous, completely protective film on metal surfaces under normal conditions of storage in all climates; it shall be readily removed by dipping in, or spraying with, AMS 3160 petroleum solvent or by wiping with cloths saturated with the solvent.
- 3.2.7 Wetting Properties and Low-Temperature Adhesion: Compound shall thoroughly wet the surface of test panels, shall form a smooth, unbroken film and shall show satisfactory adhesion, determined in accordance with 4.5.3.
- 3.2.8 Rosin: Compound shall show no evidence of the presence of rosin, determined in accordance with 4.5.4.
- 3.2.9 Acidity: Compound shall show no evidence of the presence of inorganic acid, determined in accordance with 4.5.5.
- 3.2.10 Lead Solubility: Compound shall not cause a change in weight of a lead specimen of more than 5 milligrams per square inch (0.78 mg/cm^2), determined in accordance with 4.5.6.
- 3.2.11 Loss on Heating: Compound shall lose not more than 5% in weight when tested as in 4.5.7.
- 3.2.12 Humidity Protection: Panels coated with the compound in accordance with 4.5.8.1, exposed to humid atmosphere for not less than 28 days, shall meet the requirements of 4.5.8.2.
- 3.2.13 Salt Spray Protection: Panels coated with the compound in accordance with 4.5.9.1 and exposed to salt spray in accordance with 4.5.9.2 shall protect metal panels from corrosion and pitting for not less than the times shown in Table 2.

TABLE 2 - Salt Spray Corrosion Parameters

Panel Material	Protection Time Days, minimum
Sand blasted steel	7
Polished steel	7
Polished aluminum	28

- 3.2.14 Corrosion: Compound shall not corrode polished steel, copper, magnesium, aluminum, or cadmium plate when maintained in contact with those metals for four hours ± 0.25 at $210^\circ\text{F} \pm 2$ ($99^\circ\text{C} \pm 1$).