



AEROSPACE MATERIAL SPECIFICATION

AMS3117™**REV. B**

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Superseding AMS3117A

Primer
Zinc Molybdate

RATIONALE

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1. SCOPE

1.1 Type

This specification covers a zinc molybdate primer in the form of a liquid.

1.2 Application

This product has been used typically as a protective coating on metals, but usage is not limited to such applications.

2. APPLICABLE DOCUMENTS

The issue of the following documents in effect on the date of the purchase order forms 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 cancelled and no superseding document has been specified, the last published issue of that document shall apply.

2.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

AMS2471 Anodic Treatment of Aluminum Alloys Sulfuric Acid Process, Undyed Coating

AMS4037 Aluminum Alloy, Sheet and Plate 4.4Cu - 1.5Mg - 0.60Mn (2024; -T3 Flat Sheet, -T351 Plate) Solution Heat Treated

2.2 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 D185 Coarse Particles in Pigments

ASTM D562 Consistency of Paints Measuring Krebs Unit (KU) Viscosity Using a Stormer-Type Viscometer

ASTM D563 Phthalic Anhydride Content of Alkyd Resins and Resin Solutions

ASTM D1364 Water in Volatile Solvents (Karl Fischer Reagent Titration Method)

ASTM D1475 Density of Liquid Coatings, Inks and Related Products

ASTM D2369 Volatile Content of Coatings

ASTM D3363 Film Hardness by Pencil Test

ASTM D3960 Volatile Organic Compound (VOC) Content of Paints and Related Coatings

3. TECHNICAL REQUIREMENTS

3.1 Composition

3.1.1 Primer

Volatile portion shall be 19.2 to 24% by weight, determined in accordance with ASTM D2369, with the balance being the nonvolatile portion.

3.1.1.1 Nonvolatile Components

Phthalic anhydride portion of the nonvolatile vehicle/carrier shall be 23 to 30% by weight, determined in accordance with ASTM D563. The pigment portion shall be 54 to 58% by weight of the primer as a whole.

3.1.1.1.1 The resin component shall be free of rosin and rosin derivatives.

3.1.1.1.2 Pigment

Shall consist of not less than 37.9% by weight zinc molybdate, and 14.5 to 16% by weight titanium dioxide, and shall be lead and chromium free.

3.1.1.2 Volatile Component

The composition of the volatile component shall be mineral spirits and the VOC content of the primer at application shall not exceed 340 grams per liter (2.8 lbs/gal) determined in accordance with ASTM D3960.

3.2 Properties

Primer shall conform to the following requirements:

3.2.1 Color

Shall be light yellow, characteristic of zinc molybdate.