



AEROSPACE MATERIAL SPECIFICATION

AMS3693™

REV. D

Issued 1968-05
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Stabilized 2016-11

Superseding AMS3693C

Adhesive, Modified Epoxy
Moderate Heat Resistant, 120 °C (250 °F) Curing, Film Type

RATIONALE

This document has been determined to contain basic and stable technology which is not dynamic in nature.

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1 . SCOPE:

- 1.1 Form: This specification covers a modified epoxy adhesive in the form of supported film supplied in rolls or sheets.
- 1.2 Application: Primarily for structural bonding of metallic alloys and rigid nonmetallic surfaces to themselves and to each other and for bonding of internal and external structural honeycomb components operating in the range -55° to +80°C (-65° to +180°F). A liquid primer suitable for spray or brush application may be required for use with the adhesive.

2. APPLICABLE DOCUMENTS: The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications (AMS) shall apply. The applicable issue of other documents shall be as specified in AMS 2350.

- 2.1 SAE Publications: Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096.

2.1.1 Aerospace Material Specifications:

AMS 2350 - Standards and Test Methods
AMS 2825 - Material Safety Data Sheets

- 2.2 ASTM Publications: Available from American Society for Testing and Materials, 1916 Race Street, Philadelphia, PA 19103.

ASTM B117 - Salt Spray (Fog) Testing
ASTM C297 - Tension Test of Flat Sandwich Constructions in Flatwise Plane
ASTM C393 - Flexure Test of Flat Sandwich Constructions
ASTM D471 - Rubber Property - Effect of Liquids
ASTM D1002 - Strength Properties of Adhesives in Shear by Tension Loading (Metal-to-Metal)
ASTM D1655 - Aviation Turbine Fuels
ASTM D1781 - Climbing Drum Peel Test for Adhesives
ASTM D1876 - Peel Resistance of Adhesives (T-Peel Test)
ASTM D2247 - Testing Coated Metal Specimens at 100 Percent Relative Humidity
ASTM D2294 - Creep Properties of Adhesives in Shear by Tension Loading (Metal-to-Metal)

- 2.3 U.S. Government Publications: Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120.

2.3.1 Federal Specifications:

MMM-A-132 - Adhesive, Heat Resistant, Airframe Structural, Metal to Metal

2.3.2 Military Specifications:

MIL-A-25463 - Adhesive, Film Form, Metallic Structural Sandwich Construction

2.3.3 Military Standards:

MIL-STD-794 - Parts and Equipment, Procedures for Packaging and Packing of

3. TECHNICAL REQUIREMENTS:

- 3.1 Material: Shall consist of a supported film adhesive with protective liners; uniformly dispersed fillers may be included in the film.

- 3.1.1 Resin: The resin shall conform to MMM-A-132, Type 1, Class 2, and MIL-A-25463, Type 1, Class 2.

- 3.1.2 Description: The weight or caliper, or both, of the supported film adhesive shall be as specified on the drawing or purchase order.

- 3.1.3 Shelf Life: The adhesive, stored in airtight or suitable vapor barrier containers, shall meet the requirements of 3.2 after storage for any time up to six months at not higher than -18°C (0°F).