



AEROSPACE MATERIAL SPECIFICATION

AMS3572™

REV. C

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Superseding AMS3572B

Resin Polyurethane, Foam-In-Place, Rigid

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 polyurethane systems consisting of an isocyanate component and other components containing a polyol and other ingredients which, when mixed and cured, produce thermosetting, rigid, cellular products.
- 1.2 Application: Primarily for foam-in-place applications such as electronic encapsulating or miscellaneous packaging for use from -70° to +105°C (-95° to +225°F).
- 1.3 Classification: The resin system is classified by density of the cured product as shown in Table I wherein each material is defined by nominal bulk densities of foam in the range 2 - 26 lb per cu ft (32 - 416 kg/m³) in increments of 2 lb per cu ft (32 kg/m³).
2. APPLICABLE DOCUMENTS: The following publications form a part of this specification to the extent specified herein. The latest issue of Aerospace Material Specifications 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 D1621 - Compressive Properties of Rigid Cellular Plastics

ASTM D1622 - Apparent Density of Rigid Cellular Plastics

ASTM D1673 - Relative Permittivity and Dissipation Factor of Expanded Cellular Plastics Used for Electrical Insulation

ASTM D2842 - Water Absorption of Rigid Cellular Plastics

ASTM F501 - Aerospace Materials Response to Flame with Vertical Test Specimen (for Aerospace Vehicles Standard Conditions)

- 2.3 U.S. Government Publications: Available from Commanding Officer, Naval Publications and Forms Center, 5801 Tabor Avenue, Philadelphia, PA 19120, except as specified in 2.3.3.

- 2.3.1 Military Specifications:

MIL-I-16923 - Insulating Compound, Electrical Imbedding

- 2.3.2 Military Standards:

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes

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

- 2.3.3 Federal Aviation Administration Regulations: Available from Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

FAR Part 25 - Airworthiness Standards: Transport Category Airplanes

3. TECHNICAL REQUIREMENTS:

- 3.1 Material: The compound shall consist of a polyether-type isocyanate component and other components containing a polyol and other ingredients.

- 3.1.1 Appearance: The liquid, unmixed material shall have a uniform homogeneous texture.

- 3.1.2 Storage Life: The components shall meet the requirements of 3.2 at any time up to 6 months from date of receipt by purchaser when stored in the original unopened containers below 30°C (85°F).

- 3.2 Properties of Cured Product: The components, mixed and cured in accordance with manufacturer's instructions, shall meet the requirements of 3.2.1 through 3.2.4 and of Table I, determined in accordance with test methods specified in 4.5.

- 3.2.1 Aging Stability: