SAE Aerospace
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AEROSPACE MATERIAL SPECIFICATION

SAE AMS3568/3 REV. B

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Superseding AMS3568/3A

Foam, Polyether Urethane (EU) Elastomer, Shock Absorbing 20 Pounds/Cubic Foot (320 kg/m^3) Density

RATIONALE

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

STABILIZED NOTICE

This document has been declared "Stabilized" by SAE AMS P, Polymeric Materials Committee, and will no longer be subjected to periodic reviews for currency. Users are responsible for verifying references and continued suitability of technical requirements. Newer technology may exist.

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1. SCOPE:

This specification covers a chemically or mechanically expanded polyether urethane (EU) elastomeric foam material in the form of ready-to-use sheet.

1.1 Application:

See AMS 3568.

2. APPLICABLE DOCUMENTS:

See AMS 3568.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification:

The complete requirements for procuring the foam sheet described herein shall consist of this document and the latest issue of the basic specification, AMS 3568.

3.2 Material:

Shall be an elastomeric polyether urethane (EU) foam as specified in AMS 3568 formed by open or closed cells, with natural (cream) color.

3.3 Properties:

The foam sheet shall conform to requirements shown in Table 1, determined in accordance with test methods listed in AMS 3568:

TABLE 1 - Properties

Paragraph	Property	Requirement
3.3.1	Density	18 to 22 pounds per cubic foot (288 to 352 kg/m^3)
3.3.2	Compression Deflection for 20% Compression, maximum	14 psi (96.5 kPa)
3.3.3	Compression Deflection for 40% Compression, maximum	22 psi (152 kPa)
3.3.4	Tensile Strength, minimum	65 psi (448 kPa)
3.3.5	Elongation, minimum	60.0%
3.3.6	Shock Absorption Resiliency, rebound, maximum	35.0%
3.3.7	Compression Set, maximum	20.0%
3.3.8	Dimensional Change, maximum	2.0%
3.3.9	Low-Temperature Flexibility	No cracking
3.3.10	Water Content, maximum	2.5%
3.3.11	Water Absorption, maximum	3.5%
3.3.12	Corrosion	The copper surfaces exposed to the foam specimen shall exhibit no corrosion, pitting, or alteration of the metal surface texture. Slight discoloration, tarnish, or surface oxidation is permissible.
3.3.13	Hydrolytic Stability	The sample shall exhibit no surface tackiness, exudation, or cell degradation on visual inspection, and the recovery thickness shall be not less than 15% of the initial value.
3.3.14	Dry Heat Aging	
3.3.14.1	Compression Set, maximum	15%