

# AEROSPACE MATERIAL SPECIFICATION



**AMS 3568/3A**

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Superseding AMS 3568/3

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

### 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.

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## 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<br>(288 to 352 kg/m <sup>3</sup> )                                                                                                                                                    |
| 3.3.2     | Compression Deflection for<br>20% Compression, maximum | 14 psi<br>(96.5 kPa)                                                                                                                                                                                                 |
| 3.3.3     | Compression Deflection for<br>40% Compression, maximum | 22 psi<br>(152 kPa)                                                                                                                                                                                                  |
| 3.3.4     | Tensile Strength, minimum                              | 65 psi<br>(448 kPa)                                                                                                                                                                                                  |
| 3.3.5     | Elongation, minimum                                    | 60.0%                                                                                                                                                                                                                |
| 3.3.6     | Shock Absorption<br>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<br>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<br>foam specimen shall exhibit no<br>corrosion, pitting, or alteration of<br>the metal surface texture. Slight<br>discoloration, tarnish, or surface<br>oxidation is permissible. |
| 3.3.13    | Hydrolytic Stability                                   | The sample shall exhibit no surface<br>tackiness, exudation, or cell<br>degradation on visual inspection, and<br>the recovery thickness shall be not<br>less than 15% of the initial value.                          |
| 3.3.14    | Dry Heat Aging                                         |                                                                                                                                                                                                                      |
| 3.3.14.1  | Compression Set, maximum                               | 15%                                                                                                                                                                                                                  |