SAE Aerospace
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AEROSPACE MATERIAL SPECIFICATION

SAE AMS3358 REV. C

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Superseding AMS3358B

Silicone Potting Compound, Elastomeric Two-Part, General Purpose 80 to 180 Poise (8 to 18 Pa·s) Viscosity

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 G-9, Aerospace Sealing 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:

1.1 Form:

This specification covers a room-temperature-vulcanizing, elastomeric silicone compound.

1.2 Application:

This compound has been used typically for potting and encapsulating electronic products for service from -50 to +260 °C (-58 to +500 °F) where resistance to reversion is not required, but usage is not limited to such applications.

1.3 Safety-Hazardous Materials:

While the materials, methods, applications, and processes described or referenced in this specification may involve the use of hazardous materials, this specification does not address the hazards which may be involved in such use. It is the sole responsibility of the user to ensure familiarity with the safe and proper use of any hazardous materials and to take necessary precautionary measures to ensure the health and safety of all personnel involved.

2. APPLICABLE DOCUMENTS:

The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order.

2.1 SAE Publications:

Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

AMS 2825 Material Safety Data Sheets

2.2 ASTM Publications:

Available from ASTM, 1916 Race Street, Philadelphia, PA 19103-1187.

ASTM D 149	Dielectric Breakdown Voltage and Dielectric Strength of Solid Electrical Insulating Materials at Commercial Power Frequencies
ASTM D 150	A-C Loss Characteristics and Permittivity (Dielectric Constant) of Solid Electrical Insulating Materials
ASTM D 257	D-C Resistance or Conductance of Insulating Materials
ASTM D 412	Vulcanized Rubber and Thermoplastic Rubbers and Thermoplastic Elastomers - Tension
ASTM D 573	Rubber - Deterioration in an Air Oven
ASTM D 792	Specific Gravity (Relative Density) and Density of Plastics by Displacement
ASTM D 1084	Viscosity of Adhesives
ASTM D 2137	Rubber Property - Brittleness Point of Flexible Polymers and Coated Fabrics
ASTM D 2240	Rubber Property - Durometer Hardness

2.3 U.S. Government Publications:

Available from DODSSP, Subscription Services Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.

MIL-STD-2073-1	DOD Materiel, Procedures for Development and Application of Packaging Requirements

3. TECHNICAL REQUIREMENTS:

3.1 Material:

Shall consist of two parts, a base compound and a separate catalyst which, when mixed in proper proportions, will cure at room temperature to a rubbery solid.

3.1.1 Base Compound: Shall be an uncatalyzed silicone polymer with necessary fillers.

3.1.2 Catalyst: Shall be a paste consisting of dibutyl tin dilaurate and inert filler in a silicone polymer (See 8.2).

3.2 Properties:

Compound shall conform to the following requirements:

3.2.1 Base Compound:

3.2.1.1 Color: Shall be white.

3.2.1.2 Viscosity: Shall be 80 to 180 poises (8 to 18 Pa·s), determined at 25 °C ± 1 (77 °F ± 2) in accordance with ASTM D 1084, Method B, using a No. 3 spindle at 5 rpm or a No. 5 spindle at 10 rpm on a Brookfield Model HAF viscometer or equivalent instrument.