SAE Aerospace
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AEROSPACE MATERIAL SPECIFICATION

SAE AMS3374/1 REV. A

Issued 1996-11
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Superseded by AMS3374

Sealing Compound, One-Part Silicone (Type 1) Aircraft Firewall

RATIONALE

Specification slash sheet is being cancelled. Technical information was incorporated in Revision C (July 2005) of base specification (AMS3374).

CANCELLATION NOTICE

This document has been declared "CANCELLED" as of February 2011 and has been superseded by AMS3374. By this action, this document will remain listed in the Numerical Section of the Aerospace Standards Index noting that it is superseded by AMS3374.

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1. SCOPE:

1.1 Form:

This specification covers a one-part, high temperature resistant silicone sealing compound supplied in caulking cartridges.

1.2 Application:

This product is used primarily for sealing aircraft firewall structures against passage of air and vapors. The cured compound shall remain an effective sealant at all temperatures between -65 and +400 °F (-54 to +204 °C) and shall be able to withstand a flash temperature of 2000 °F (1093 °C).

2. APPLICABLE DOCUMENTS:

See AMS 3374.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specifications:

The complete requirements for procuring the sealing compound described herein shall consist of this document and the latest issue of the basic specification AMS 3374.

3.2 Materials:

The basic ingredient used in the manufacture of these products shall be a synthetic rubber. The sealant shall cure to an elastomeric material under ambient (room temperature) conditions. The sealant shall not depend on solvent evaporation for curing and acids shall not be given off during the cure.

3.3 Properties:

Shall conform to the following requirements, determined in accordance with test methods listed in AMS 3374 and Table 1.

3.3.1 Primer: The manufacturer's recommended primer shall be used in preparation of all applicable test specimens.

TABLE 1 - Properties

Test Method Paragraph (Basic Specification)	Property	Requirement
4.5.3	Specific Gravity	Preproduction Value ±0.03
4.5.4	Nonvolatile Content, min	90%
4.5.5	Flow	0.05 to 0.75 inch (1.3 to 18.7 mm)
4.5.6	Tack-Free Time, max	6 hours
4.5.7	Hardness, Durometer A, min	45
4.5.8	Thermal-Rupture Resistance, max	1/8 inch (3.2 mm)
4.5.9	Low Temperature Flexibility	No cracking or loss of adhesion
4.5.10	Peel Strength, min	10 pounds/inch (1750 N/m)
4.5.11	Corrosion Resistance	No loss of adhesion, softening, blistering, or leaching. No corrosion of panel. Discoloration is acceptable.
4.5.12	Flame Resistance	No Flame Penetration
4.5.13	Oil Resistance	No loss of adhesion, softening, or blistering.
4.5.14	Storage Stability	Shall meet requirements for flow, tack-free time and hardness.
4.5.15	Shear Strength, psi min	150
4.5.16	Application Time, min	2 hours
4.5.17	Repairability	Adhere

4. QUALITY ASSURANCE PROVISIONS:

See AMS 3374.

5. PREPARATION FOR DELIVERY:

5.1.1 Packaging:

5.1.1 Unless otherwise specified, the sealing compound shall be furnished in caulking cartridges containing 10.67 fluid ounces ± 0.25 (315 mL ± 2) of sealing compound, each. The cartridges shall include a self contained plastic nozzle, the tip designed to be cut off to allow extrusion of the compound. Unless otherwise specified, the cartridge shall be packaged in sectionalized cardboard boxes containing 24 cartridges per box.

5.1.2 Primer: Six 4 fluid ounces (120 mL) glass bottles of primer shall be furnished with each 24 cartridge box of sealing compound. The bottles shall be packaged in a suitable sectionalized cardboard box. Instructions for use of the primer shall be included.

5.1.3 Boxes of sealing compound and of primer bottles shall be prepared for shipment in accordance with commercial practice and in compliance with applicable rules and regulations pertaining to the handling, packaging, and transportation of the compound to ensure carrier acceptance and safe delivery.

5.2 Identification:

5.2.1 Sealing Compound: Each cartridge and each box shall be permanently marked to show the following information:

SEALING COMPOUND, ONE-PART SILICONE (Type 1), Aircraft Firewall
AMS 3374/1
MANUFACTURER'S IDENTIFICATION _____
COMPOUND NUMBER _____
LOT NUMBER _____
EXPIRATION DATE _____
Store below 80 °F (27 °C)
Refrigerator or freezer storage can prolong useful life.

5.2.2 Primer: Each bottle and each box shall be permanently marked to show the following information:

PRIMER NUMBER _____
MANUFACTURER'S IDENTIFICATION _____
LOT NUMBER _____
EXPIRATION DATE _____
Store below 80 °F (27 °C).
To be used with AMS 3374 Sealing Compound.