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INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

SAE AMS 3267/4A

Issued 1 APR 1984
Revised 1 APR 1992
Superseding AMS 3267/4

SEALING COMPOUND, LOW ADHESION, CORROSION INHIBITING 9,000 to 14,000 Poises (900 to 1400 Pa·s), 2 Hour Application Time (B-2)

1. SCOPE:

1.1 Form:

This specification covers accelerated curing synthetic rubber compounds with corrosion inhibitors and low adhesive strength supplied as a two-component system.

1.2 Application:

This product has been used typically for sealing aircraft access doors and accessories where gaskets are required, but usage is not limited to such applications. Compound is classified as a B-2 sealing compound; the compound being suitable for application by an extrusion gun or spatula with a minimum application time of two hours after the start of mixing.

2. APPLICABLE DOCUMENTS:

See AMS 3267.

3. TECHNICAL REQUIREMENTS:

3.1 Basic Specification:

The complete requirements for procuring the sealing compound described herein shall consist of this document and the latest issue of the basic specification, AMS 3267.

3.2 Properties:

Compound, mixed in accordance with manufacturer's instructions and cured as specified in the basic specification, shall conform to the following requirements, determined in accordance with test methods listed in AMS 3267 and Table 1.

Printed in U.S.A.
91-0942/EG

TABLE 1 - Properties

Paragraph	Property	Requirement
3.2.1	Color	
3.2.1.1	Base Compound	Reddish
3.2.1.2	After Curing	Reddish
3.2.2	Specific Gravity, maximum	1.65
3.2.3	Nonvolatile Content, minimum	92% by weight
3.2.4	Viscosity of Base Compound (See 4.2)	9,000 to 14,000 poises (20 to 60 Pa·s)
3.2.5	Flow (See 4.3)	0.10 to 0.75 inch (2.5 to 19.0 mm)
3.2.6	Application Time (See 4.4)	2 hours after the beginning of mixing, 15 grams per minute, minimum, shall be extruded
3.2.7	Tack-Free Time, maximum	24 hours, measured from the beginning of mixing
3.2.8	Hardness (Cure time to attain 30 Durometer "A"), minimum	72 hours
3.2.9	Peel Adhesion	4 pounds force per inch (700 N/m) width maximum; 98% adhesive failure, minimum
3.2.10	Resistance to Heat	No visual evidence of softening, sponging, blistering, checking, cracking, shrinkage, or powdering
3.2.11	Resistance to Salt Water and Hydrocarbons	No visual evidence of softening, blistering, or evidence of corrosion
3.2.12	Weight Loss and Flexibility	8% weight loss; No cracking when bent
3.2.13	Low-Temperature Flexibility	No visual evidence of cracking or checking
3.2.14	Accelerated Storage Stability	
3.2.14.1	Application Time, minimum (See 4.4)	Two hours, measured from the beginning of mixing

TABLE 1 - Properties (Continued)

Paragraph	Property	Requirement
3.2.14.2	Tack-Free Time, maximum	24 hours, measured from the beginning of mixing
3.2.14.3	Viscosity of Base Compound	9,000 to 14,000 poises (900 to 1400 Pa·s)
3.2.15	Soluble Chromate Content, minimum	2.5% by weight

4. QUALITY ASSURANCE PROVISIONS:

See AMS 3267 and the following:

4.1 Application of Sealing Compound:

Unless otherwise specified herein, test panels shall be given an application of sealing compound to produce a coating having a thickness of 1/8 inch ± 1/64 (3.2 mm ± 0.4) when cured.

4.2 Viscosity of Base Compound:

Shall be determined with the base compound placed in a 1 quart (1 L) can. The can shall be filled with base compound to within 1/2 inch (12.7 mm) of the top, covered, and stored at 25 °C ± 1 (77 °F ± 2) for not less than eight hours. The base compound shall then be thoroughly mixed by stirring slowly for three minutes after which the can shall be closed and the base compound allowed to stand for one hour. The Brookfield Model RVF viscosimeter with No. 7 spindle at 2 rpm, or equivalent, shall be used and the readings obtained converted to poises. The highest reading shall be taken after the instrument has run in the compound for one minute.

4.3 Flow:

A standard Semco sealant gun cartridge, or equivalent, fitted with a nozzle, shall be filled with freshly mixed sealing compound. The gun and sealing compound shall be maintained at standard conditions throughout the test. The test shall be conducted with a flow-test jig as shown in Figure 1. Depth of plunger tolerance is critical and shall be controlled within the tolerance during all tests. The flow-test jig shall be placed on a table with the front face upward and the plunger depressed to the limit of its travel. Within 15 minutes after the beginning of mixing, enough of the-mixed sealing compound shall be extruded from the application gun to fill the recessed cavity of the jig and leveled off even with the block. The test at this interval shall be considered the initial flow of the sealing compound. Within 10 seconds after the leveling operation, the jig shall be placed upright on its end and the plunger immediately advanced to the limit of its forward travel. The flow measurement shall be taken 30 minutes after the sealing compound has been applied to the test jig. The flow shall be measured from tangent to the lower edge of the plunger to-the furthest point to which flow has advanced. As the sealing compound progresses in its application time, the flow-test shall be repeated 90 minutes after the end of mixing.

4.4 Application Time:

The base compound, accelerator, and application gun shall be stabilized at standard conditions for not less than eight hours before not less than 250 gram of base compound is mixed with the proper amount of accelerator. The mixed sealing compound shall be promptly used to fill a standard Semco sealing compound gun cartridge, or equivalent, having a Semco 440 nozzle with an orifice diameter of 0.125 inch ± 0.005 (3.18 mm ± 0.13). The gun and sealing compound shall be maintained at standard conditions throughout the test. The gun shall be attached to a constant air supply of 90 psi ± 5 (621 kPa ± 34). From 2 to 3 inches (51 to 76 mm) of sealing compound shall be extruded initially to clear trapped air. At the end of two hours, measured from the beginning of the mixing period, the sealing compound shall be extruded onto a suitable receptacle for one minute and the amount of extruded sealing compound determined.

5. PREPARATION FOR DELIVERY:

See AMS 3267.

6. ACKNOWLEDGMENT:

See AMS 3267.

7. REJECTIONS:

See AMS 3267.

8. NOTES:

See AMS 3267.