

# AEROSPACE MATERIAL SPECIFICATION

Submitted for recognition as an American National Standard

**SAE**

**AMS 3369A**

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Superseding AMS 3369

**SILICONE RESIN, ELASTOMERIC, OPAQUE**  
Elevated Temperature Cure

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# AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
TWO PENNSYLVANIA PLAZA, NEW YORK, N.Y. 1000

## AMS 3369

Issued 5-1-69  
Revised

### SILICONE RESIN, ELASTOMERIC, OPAQUE Elevated Temperature Cure

1. **ACKNOWLEDGMENT:** A vendor shall mention this specification number in all quotations and when acknowledging purchase orders.
2. **FORM:** Liquid resin and separate catalyst.
3. **APPLICATION:** Primarily for encapsulation, conformal coating, and adhesive applications where dielectric properties are important and an elevated temperature cure is possible.
4. **COMPOSITION:** The product shall be an opaque silicone resin and suitable catalyst which will cure at elevated temperature.
5. **TECHNICAL REQUIREMENTS:**
  - 5.1 **Properties:** The product shall conform to the following requirements; tests shall be conducted in accordance with the issue of specified ASTM methods listed in the latest issue of AMS 2350, insofar as practicable; tests shall be conducted at 23 - 29 C (73.4 - 84.2 F), unless otherwise specified.
    - 5.1.1 **Viscosity of Uncatalyzed Resin:** The uncatalyzed resin shall have viscosity of 5000 - 11000 centipoise when tested using a Brookfield Viscometer Type HAF with a No. 2 spindle at 5 revolutions per minute.
    - 5.1.2 **Shelf Life of Uncatalyzed Resin:** The shelf life of the uncatalyzed resin and the catalyst shall be not less than 12 months from date of shipment.
    - 5.1.3 **Pot Life of Catalyzed Resin:** The pot life of the catalyzed resin shall be not less than 4 hr as determined by the time necessary for the viscosity to double in centipoise value from zero hour catalyzed viscosity.
    - 5.1.4 **Catalyzed and Cured Resin:** Test specimens shall be prepared by mixing and de-airing 100 parts by weight of the basis resin and 10 parts by weight of the catalyst, casting into appropriate shapes, and curing at 143 - 154 C (289.4 - 309.2 F) for not less than 10 min. or at 70 - 80 C (158 - 176 F) for not less than 6 hours.

|                                                  |             |                     |
|--------------------------------------------------|-------------|---------------------|
| Hardness, Durometer A or equiv.                  | 40 - 60     | ASTM D2240          |
| Specific Gravity                                 | 1.18 - 1.28 | ASTM D792, Method A |
| Dielectric Constant, max<br>at 1 MHz and 100 MHz | 3.15        | ASTM D150           |
| Dissipation Factor, max<br>at 1 MHz and 100 MHz  | 0.01        | ASTM D150           |
| Elongation, %, min                               | 100         | ASTM D412           |

6. **QUALITY:** The product shall be uniform in quality and condition, clean, homogeneous, and free from foreign materials and imperfections detrimental to fabrication, appearance, or performance of parts.