



AEROSPACE MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.
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AMS 3368

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Revised

SILICONE RESIN, ELASTOMERIC, TRANSPARENT 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 critical and elevated temperature cure is possible.
4. **COMPOSITION:** The product shall be a colorless, transparent 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 a viscosity of 4000 - 7000 centipoise when tested using a Brookfield Viscometer Type LVF with a No. 3 or 4 spindle at 6 or 12 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 8 hr as determined by the time necessary for the viscosity to double in centipoise value.
 - 5.1.4 **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	40 - 60	ASTM D2240
Specific Gravity	1.02 - 1.08	ASTM D792, Method A
Brittle Point	Pass	ASTM D746, Procedure B Temperature: $-70\text{ C} \pm 1$ $(-94\text{ F} \pm 1.8)$ Time: 10 min.
Dielectric Constant at 10^5 cycles, max	2.88	ASTM D150
Dissipation Factor at 10^5 cycles, max	0.002	ASTM D150
Elongation, %, min	100	ASTM D412

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