

ARS RTV Silicone Compound 109-019

ARS RTV Silicon was developed to provide a one-step, one material process to provide a surface insulation such as the commutator end of armatures (the spider) used in D.C. traction motors. ARS has also been found to improve the life to failure by a factor of at least two times in actual field experience and by a factor of five times plus in laboratory comparison tests ASTM-D-2303 (inclined plane arc track test).

By the use of ARS only one material is required to insulate and cover the surface against the creepage currents. This ARS material provides all the necessary mechanical strength, electrical insulation and arc resistant properties. Because ARS is elastomeric, with a high degree of elongation, it will not crack or break its adhesive bond with the metallic surface during large, sudden changes in temperature. It's elastomeric properties are retained at very low and very high temperatures for years.



Advantages:

- Arc resistant wet and dried
- Hydrophobic Prevents Leakage Currents
- Moisture and Chemical Resistant
- Forms Permanent Bond with Surface
- Resists Cracking Due to Vibration and Thermal Expansion and Contraction
- Non-Hardening with High Temperature and Age
- Easily Dispensed with Caulking Gun or Pail Bulk Pumping Equipment
- High Corona and UV Resistance
- Will Not React With or Corrode Armature Materials
- Will Not Slump, Sag or Run Off Surfaces
- Non-Toxic Not Listed Under SARA Title III
- No Requirement for Toxic Catalysts

Applicable Standards:

ASTM D149, ASTM D150, ASTM D257, ASTM D495, ASTM D2303

Application Procedure

1. Wipe and clean the surface with lint free tissues dampened with isopropyl alcohol.

2. Apply silicone rubber primer of D102 or DC1200 to surface. Primer can be applied by brush or by wiping on with a clean tissue or lint-free cloth. This primer is used to promote adhesion. A thin, even coat will provide optimal adhesion.

3. Apply the ARS to the surface. Using a plastic spatula or wooden stick such as a popsicle stick or tongue depressor, smooth the surface of ARS even with the spider lip and proceed with a thin coating . Due to the non-slump properties of ARS, parts can be removed immediately after application is complete and positioned either horizontally or vertically.

4. The finished insulated object should be allowed to cure for 24 hours before being spin balanced or placed in operation.

Mechanical Specification:

Product No.	Durometer, Shore A	Tear Strength PSI	Tensile Strength Lb/inch	Elongation %	Thermal Conductivity w / m-k
109-019	85	100	Min 400	Min 200	0.520

Electrical Specification:

Product No.	Dielectric Strength volts/mil	Dielectric Constant	Dissipation Factor	Volume Resistance ohm/cm ³	Dry Arc Resistance
109-019	520	100	Min 400	Min 200	Track: 180 Sec Burn: 430 Sec

Availability:

Arc Resistant RTV is supplied in:

- 6 oz plastic cartridges
- 1/10 gal plastic cartridges
- 5 gal plastic grease pails.

Shelf Life:

ARC Resistant Sealant has a shelf life of one year from date of Manufacturing. Keep containers tightly closed to avoid contact with moisture and entering the contamination.



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