



TSE399

One Component RTV Adhesive Sealant/Coating

Product Description

TSE399 adhesive/sealant/coating is one component RTV that cures quickly by reacting with atmospheric moisture forming a soft dielectric silicone rubber. The material incorporates a newly developed cross linking chemistry and is non-corrosive to metallic substrates. It particularly is well suited for electrical/electronic applications.

TSE399 is Flowable. When cured, it retains its elastomeric properties throughout the operating range of temperature from -55C to 200°C (-67F to 392F).

Key Performance Properties

PRODUCT FEATURES

- Meets the corrosion resistant requirements of MIL-A-46146A*
- Fast cure at ambient temperatures
- Odor, slight alcohol
- Outstanding adhesion, including most plastics
- Outstanding electrical properties
- Resistant to heat, cold, moisture, UV, ozone and chemicals

PRODUCT BENEFITS

- One component, no mixing or de-airing required
- Soft consistency provides protection against mechanical and thermal shock
- Excellent electrical insulation
- Protects against moisture
- Allow thorough coating around complex assemblies (TSE399)
- Convenient packaging/dispensing tubes or cartridges.

* Does not meet hydrolytic stability requirement of MIL-A-46146A

Typical Product Data

Uncured Properties	TSE399
Cure System	Alkoxy
Colors Available	Clear White Black
Consistency	Flowable
Viscosity, cps (@ 25 °C(77 °F))	2,500
Tack Free Time, minutes	10
Cured Properties	
Specific Gravity	1.04
Hardness (JIS A)	30
Tensile Strength, kgf/cm ² (psi)	13 (185)
Elongation, %	140
Useful Temperature Range (Continuous) °C (°F)	-55 to 200 (-67 to 392)
Dielectric Strength , kV/mm (V/mil)	20 (510)
Dielectric Constant (60 Hz)	2.9
Dissipation Factor (60 Hz)	0.005
Volume Resistivity, ohm-cm	2x10 ¹⁵

Specifications

Typical product data values should not be used as specifications. Assistance and specifications are available by contacting GE Silicones at 800/255-8886

Instructions for Use**Surface Preparation**

Insure that surfaces to be sealed, coated or bonded are clean and free of grease, lubricating oils, release agents and dirt. To optimize fast cure and good adhesion, substrates must be thoroughly dry of cleaning solvents before applying the RTV. The RTV should be applied to one surface only. Wipe away excess uncured material with a clean cloth. After curing, removal of material is more difficult.

Bonding

These products offer primer less adhesion to many substrates including most plastics. Maximum adhesion is obtained 72 hours after full cure is obtained (2 mm thick specimen to an aluminum substrate).

Curing

These products cure at room temperature reacting with atmospheric moisture. Whenever possible, 25°C (77°F) and 50% relative humidity should be provided. Higher temperature and humidity will cause faster cures while lower temperatures and lower humidity will slow the cure considerably.

These products cure from the outside (outer skin) inward, therefore, cure rate is also dependent on the thickness of the material. It is not recommended to apply material thicker than 1/4 inch.

Handling and Safety

Material Safety Data Sheets are available upon request from GE Silicones. Similar information for solvents and other chemicals used with GE products should be obtained from your suppliers. When solvents are used, proper safety precautions must be observed.

Storage and Warranty Period

The warranty period is 12 months from the date of shipment from GE Silicones if stored in the original unopened container at temperatures between 5C and 30C (41F and 86F).

Availability

Products may be ordered from GE Silicones, Waterford, N.Y. 12188, or the GE Silicones sales office nearest you.

Government Requirement

Prior to considering use of a GE Silicone product in fulfilling any government requirement, please contact the Government and Trade Compliance office at 413-448-4624.

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