



GE Bayer Silicones

TSE392, TSE397, TSE399

One Component RTV Adhesive Sealants/Coatings

Product Description

TSE392, TSE397 and TSE399 adhesive/sealants/coatings are one component RTV's that cure quickly by reacting with atmospheric moisture forming a soft dielectric silicone rubber. These materials incorporate a newly developed crosslinking chemistry and are non-corrosive to metallic substrates. They are particularly well suited for electrical/electronic applications. This series of products differ in consistency, TSE392 is a thixotropic paste, TSE397 is semi-flowable, and TSE399 is flowable. When cured, they retain their elastomeric properties throughout the temperature range from -55°C to 200°C

Key Performance Properties

PRODUCT FEATURES

- Non corrosive to metals, meets MIL-A-46146B corrosion test
- Fast cure at ambient temperatures
- Odour, slight alcohol
- Outstanding adhesion, including most plastics
- Outstanding electrical properties

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
- Varying viscosities allow thorough coating around complex assemblies (TSE399) and thicker coatings where required i.e., high voltage components (TSE392 & TSE397).
- Convenient packaging/dispensing tubes or cartridges.

Typical Product Data

Uncured Properties	TSE392	TSE397	TSE399
Cure System	Alkoxy	Alkoxy	Alkoxy
Colours Available	Clear /White	Clear/White/Black	Clear/White/Black
Consistency	Thixotropic Paste	Semi Flowable	Flowable
Viscosity, mPa.s @ 25°C	-	50,000	2,500
Tack Free Time,min	5	10	10
Cured Properties			
Density, g/cm ³	1.04	1.04	1.04
Hardness (JIS A)	30	20	30
Tensile Strength, MPa	1.6	1.2	1.3
Elongation, %	400	300	140
Useful Temp. Range °C	-55 to 200	-55 to 200	-55 to 200
Diel. Strength , kV/mm	22	22	20
Dielectric Const. (60 Hz)	2.9	2.9	2.9
Dissip. Factor (60 Hz)	0.005	0.005	0.005
Volume Resist. ohm.cm	2x10 ¹⁵	2x10 ¹⁵	2x10 ¹⁵

Specifications

Typical product data values should not be used as specification. Assistance and specification are available by contacting GE Bayer Silicones Technical Service RTV1 and RTV2.

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 primerless 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 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 6 mm.

Handling and Safety

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

Storage and Warranty Period

The shelf life will be indicated by the 'use before date' on the associated documents with a minimum of 4 months when stored in the original unopened containers below 27° C.

Availability

TSE39X is available in 18 kg pails, 333 ml cartridges and 100 g tubes.
TSE397B is only available in 100 g tubes

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