

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 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 -55C 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 Momentive performance materials 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 Momentive performance materials. Similar information for solvents and other chemicals used with the Momentive performance materials 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



PRINCIPAL LOCATIONS – Regional Information

| | | | |
|--|---|---|--------------------|
| North America | World Headquarters 187 Danbury Road Wilton, CT 06897, USA | T 800.295.2392 | F 607.754.7517 |
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CUSTOMER SERVICE CENTERS

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| | • Specialty Fluids | T 800.523.5862 | F 304.746.1654 |
| | • UA, Silanes, Resins, and Specialties | T 800.334.4674 | F 304.746.1623 |
| | • RTV Products-Elastomers | T 800.332.3390 | F 304.746.1623 |
| | • Sealants and Adhesives & Construction | T 877.943.7325 | F 304.746.1654 |
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