MOMENTIVE

Technical Data Sheet

TSE399

TSE399

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 operating range of temperature from -55C to 200°C (-67F to 392F).

Key Features and Benefits

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
- 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.

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

Typical Physcial Properties

Uncured Properties	TSE392	TSE397	TSE399
Cure System	Alkoxy	Alkoxy	Alkoxy
Colors Available	Clear /White	Clear/White	Clear/White/Black
Consistency	ThixotropicPaste	SemiFlowable	Flowable
Viscosity, cps (@ 25°C(77°F))	-	50,000	2,500
Tack Free Time, minutes	5	10	10
Cured Properties			
Specific Gravity	1.04	1.04	1.04
Hardness (JIS A)	30	20	30
Tensile Strength, kgf/cm^2(psi)	16 (227)	12 (170)	13 (185)
Elongation, %	400	300	140

UsefulRange(Continuous) °C (°F)	-55 to 200(-67 to 392)	-55 to 200(-67 to 392)	-55 to 200(-67 to 392)
Dielectric Strength ,kV/mm (V/mil)	22 (560)	22 (560)	20 (510)
Dielectric Constant (60Hz)	2.9	2.9	2.9
Dissipation Factor (60Hz)	0.005	0.005	0.005
Volume Resistivity,ohm-cm	$2x10^{15}$	$2x10^{15}$	$2x10^{15}$

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

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

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, and any special storage conditions required for safety. MSDS are available at www.momentive.com or, upon request, from any Momentive Performance Materials (MPM) representative. **For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center**. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Processing Recommendations

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 (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.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

From automotive to healthcare, from electronics to construction, products from Momentive Performance Materials Inc. are practically everywhere you look. We are a global leader in silicones and advanced materials with a 70+ year heritage of innovation and being first to market – with performance applications that improve everyday life. By knowing our customers' needs and creating custom technology platforms for them, we provide science based solutions to help customers increase performance, solve product development issues and engineer better manufacturing processes.

Contact Information For product prices, availability, or order placement, contact our customer service by visiting momentive.com/ContactSilicones.

For literature and technical assistance, visit our website at: www.momentive.com

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