

TSE3946

Low volatile, Flame retardant Silicone Adhesive Sealant

Product Description TSE3946 is a one-component low volatile silicone adhesive/sealant, which cures on exposure to atmospheric moisture at room temperature to form elastic flame retardant silicone rubber. TSE3946 shows excellent corrosion-free adhesion to metals, including copper, plastics, ceramics, and glass etc without the use of primers.

Key Performance Properties

PRODUCT FEATURES

- Low volatility; reduced low molecular siloxane content
- Flame retardant: approved UL94V-1 (File No: E56745)
- Non-corrosive to metals; Meets MIL-A-46146B corrosion test.
- Fast cure.
- Low odour; releases an alcohol vapour during cure
- Outstanding electrical properties
- Primerless adhesion to many substrates
- Excellent high and low temperature resistance; from -55°C to 200°C

Applications

Electronic adhesive and sealing applications requiring low volatility and flame retardency
 Non-corrosive sealing/ bonding for integrated circuits and semiconductors
 Connection sealing on electronic parts assemblies

Typical Product Data

Uncured Properties	
Cure System	Alkoxy
Corrosion MIL-A-46146B	None
Colour	White
Consistency	Non sagging paste
Tack Free Time (23°C), minutes	5
Cured Properties (7 days@23°C /50 %RH)	
Specific gravity, g/ccm	1.70
Hardness (JIS A)	68
Tensile strength, MPa	2.9
Elongation, %	100
Shear strength Alu/Alu, MPa	1.6
Thermal conductivity, W/(m.K)	0.83
Dielectric strength, kV/mm	23
Dielectric constant (60 Hz)	4.0
Dissipation factor (60 Hz)	0.04
Volume resistivity, ohm.cm	4.0x10 ¹⁴



Specifications

Typical product data values should not be used as specification. Assistance and specification are available by contacting Momentive performance materials Technical Service RTV.

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

This product offers 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

This product cures 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.

This product cures 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 6mm.

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 90 days when stored in the original unopened containers below 27°C.

Availability

TSE3946 is available in 150 g tubes and in 333ml cartridges.



PRINCIPAL LOCATIONS – Regional Information

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CUSTOMER SERVICE CENTERS

North America	Charleston, WV 25314, USA E cs-na.silicones@momentive.com		
	• 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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