



TSE326

High Temperature, Heat Cured One Component Silicone Adhesive

Product Description

TSE326 is a one-component, heat curing silicone adhesive which offers extended performance at temperatures exceeding 200C. A flowable material with primerless adhesion to many substrates, it is suitable for assembly and gasketing where a flowable consistency is required. TSE 326 requires a minimum cure temperature of 100C and offers very low linear shrinkage and an improved thermal conductivity of 0.29 W/m K. Reddish brown in color.

Key Performance Properties

- One component product-no mixing required
- Fast cure at elevated temperatures
- Primerless adhesion to many types of substrates
- Low linear shrinkage
- Excellent heat resistance
- Outstanding dielectric properties

Typical Product Data

Uncured Properties	
Color	Reddish brown
Viscosity, cps	28,000
Cured Properties (cured 1 hour at 150C)	
Specific Gravity	1.45
Hardness (JIS A)	43
Tensile Strength, psi (kgf/cm ²)	498 (35)
Elongation, %	170
Adhesion, psi, (kgf/cm ²) (Al to Al)	284 (20)
Dielectric Strength, volts/mil	558
Dielectric Constant	3.3
Dissipation Factor	0.02
Volume Resistivity, ohm-cm	2x10 ¹⁵
Linear Thermal Expansion Coefficient, cm/cm C	17x10 ⁻⁵

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**Compatibility**

TSE 326 silicone adhesive will cure in contact with most clean, dry surfaces. However, certain materials, such as butyl and chlorinated rubber, sulfur-containing materials, amines, and certain metal soap cured RTV silicone rubber compounds can cause cure inhibition. Cure inhibition is characterized by a gummy appearance of the TSE 326 silicone adhesive at the interface between the adhesive and the substrate to be bonded. It is recommended that a patch test be performed with the TSE 326 silicone adhesive to determine substrate compatibility.

Surface Preparation

The adhesive performance of any polymer system is highly dependent upon proper surface preparation. In order to maximize the adhesion of TSE 326 silicone adhesive and minimize the potential for cure inhibition, all parts should be as clean and dry as possible prior to the application of the adhesive.

Bonding

TSE 326 silicone adhesive offers outstanding adhesion characteristics to a wide variety of different substrates without the need of a primer.

For difficult-to-bond substrates, or where more aggressive chemical adhesion is desired, the adhesion may be enhanced by using SS4155 silicone primer, available from GE Silicones. To apply the primer, thoroughly clean the surface and let dry. Then apply a uniform film (0.01-0.02 mm/ 0.5-1.0 mil) of SS4155 silicone primer and allow the primer to air dry for one hour or more. For more details on priming and adhesion, please refer to GE Silicones product data sheet on silicone primers (#1873).

Curing

TSE 326 silicone adhesive requires the use of elevated temperatures in order to achieve full cure. Typical cure times and temperatures are as follows:

Temperature	TSE 326
100C	2 hours
125C	45 minutes
150C	30 minutes

The actual cure time is affected by such things as cross-sectional thickness of the TSE 326 silicones adhesive, heat capacity of the overall assembly and efficiency and type of oven used (i.e. convection, infrared). If an oven is used, it should be well ventilated.

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.

CAUTION

Uncured TSE 326 silicone adhesive can generate flammable hydrogen gas upon contact with acidic, basic, or oxidizing materials. Such contact should be avoided.

Storage and Warranty Period

The warranty period for TSE 326 silicone adhesive is 6 months from date of shipment from GE Silicones if stored in the original unopened container at or below 10C (50F).

Availability

Products may be ordered from GE Silicones, Waterford, NY 12188, the GE Silicones sales office nearest you, or where appropriate, or an authorized GE Silicones product distributor.

Government Requirement

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

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