

# General Purpose Silicone Adhesive Sealant

# TSE387

**TSE387** is a one-component, oxime cure, silicone adhesive sealant which cures at room temperature with moisture in the air. TSE387 has a pourable consistency and excellent adhesion to metals, plastics, ceramics, glass, etc without the use of primers.

## KEY FEATURES

- ◆ Primerless adhesion to many substrates
- ◆ Neutral cure; Little risk of corrosion (corrosion to copper and copper alloys)
- ◆ Excellent weatherability, ozone, and chemical resistance
- ◆ Excellent electrical insulation properties
- ◆ Simple and easy-to-use one-component system
- ◆ Color variations; Clear (Translucent), White, Black

## APPLICATIONS

- ◆ Industrial sealing and coating
- ◆ Electric insulation
- ◆ Thin section potting of electrical components
- ◆ General adhesive for metals, glass, plastics, wood, etc

## TYPICAL PROPERTY DATA

TYPICAL UNCURED PROPERTIES		
Appearance		Flowable paste
Viscosity (23°C),	Pa·s {P}	60 {600}
Tack-free Time (23°C)	min.	90
TYPICAL CURED PROPERTIES (7days @23°C / 50%RH)		
Appearance		Elastic rubber
Specific gravity		1.04
Hardness (Type A)		25
Tensile strength	MPa {kgf/cm <sup>2</sup> }	1.8 {18}
Elongation	%	300
Adhesive strength*	MPa {kgf/cm <sup>2</sup> }	1.3 {13}
Thermal conductivity	W/(m·K) {cal/(cm·s·°C)}	0.18 {4.4×10 <sup>-4</sup> }
ELECTRICAL PROPERTIES (CURED)		
Volume resistivity	MΩ·m {Ω·cm}	1×10 <sup>7</sup> {1×10 <sup>15</sup> }
Dielectric strength	kV/mm	20
Dielectric constant (60Hz)		2.9
Dissipation factor (60Hz)		0.004

\* Aluminum Lap shear

*Typical property data values should not be used as specifications. Assistance and specifications are available by contacting GE Toshiba Silicones Commercial Office.*

# TSE387

## ADHESION PERFORMANCE

TSE387 has excellent bonding properties and adheres to many materials without primers. However, for significantly better adhesion on difficult-to-bond substrates, use of a primer is suggested. The following list of materials shows the quality of adherence of TSE387 used with ME121, ME123, XP80-A5363 or without a primer.

SUBSTRATE	NO PRIMER	ME121	ME123	XP80-A5363
<b>Metals</b>				
Copper	△*	○*		
Steel	○	○		
Mild steel	○	○		
Brass	△*	○*		
Stainless steel	△	○		
Pure aluminum	○	○		
Corrosion-resistant aluminum	○	○		
Galvanized sheet iron	○	○		
Tin plate	○	○		
<b>Plastics</b>				
Acrylic resin	○			
Phenolic resin	○			
Epoxy resin	○			
Soft polyvinyl chloride	×	×	○	
Rigid polyvinyl chloride	○	○	○	
Polyester film	○	○	○	
Unsaturated polyester resin	○	○	○	
Polyimide	○	○	○	
ABS resin	○	○	○	
Polypropylene	×	×	×	○
Polyethylene	×	×	×	×
Fluoride resin	×	×	×	
Silicone varnish laminate	○	○		
Silicone varnish coated glass cloth	○	○		
<b>Rubbers</b>				
Chloroprene	△		○	
Nitril	△		○	
Styrene butadiene	△		○	
Ethylene propylene	△		○	
Silicone	○		○	
<b>Inorganic materials</b>				
Glass	○	○		
Mortar	△	○		
ALC	△	○		
Ceramic	○	○		
<b>Wood</b>				
Cedar	○	○		
Cypress	○	○		
Lauan	△	△		

Note

○ : Excellent (Cohesive failure 100%)

△ : Not sufficient

×

\* : Corrosion may occur depending on the application

Do not apply to Polycarbonate due to solvent crack

# TSE387

---

## HANDLING AND SAFETY

- ◆ Wear eye protection when handling uncured sealant as it can irritate eyes.
- ◆ In case of eye contact, immediately flush eyes well with water and contact a physician.
- ◆ Extended contact with the skin may cause irritation and should be avoided.
- ◆ This product releases methyl ethyl ketoxime vapors during cure. Adequate ventilation must be maintained in the work place at all times.

## STORAGE

- ◆ Store in a cool, dry place out of direct sunlight.
- ◆ Keep out of the reach of children.

## PACKAGING

- ◆ 100g tube available in case of 20 ••• Clear / White
- ◆ 333ml cartridge available in case of 50 (5 boxes of 10 cartridge) ••• Clear / White / Black
- ◆ 18kg pail ••• Clear / White

TSE387 E  
Issued Feb. 2000/1st revised Nov. 2000

---

### **FOR INDUSTRIAL USE ONLY**

*It is the responsibility of the user to determine the suitability of any GE Toshiba Silicones product for any intended application. NEVER USE ANY GE TOSHIBA SILICONES PRODUCT FOR IMPLANTATION OR INJECTION INTO THE HUMAN BODY. Specifications are available by contacting GE Toshiba Silicones. Typical property data values should not be used as specifications. Inasmuch as GE Toshiba Silicones Company, Ltd. has no control over the use to which others may put the material, it does not guarantee that the same results as those described herein will be obtained. Each user of the material should make his own tests to determine the suitability of the material for his own particular use. Statements concerning possible or suggested uses of the materials described herein are not to be construed as constituting a license under any GE Toshiba Silicones patent covering use or as recommendations for use of such materials in the infringement of any patent. Material Safety Data Sheets are available upon request from GE Toshiba Silicones. The contents of this catalog are subject to change without notice. No part of this data may be reproduced without the prior approval of GE Toshiba Silicones.*



**GE Toshiba Silicones Co., Ltd.**

GE Toshiba Silicones Co., Ltd. (Tokyo Head Office)	Phone: 81-3-3479-5355	FAX: 81-3-3479-2944
	6-2-31 Roppongi, Minato-ku, Tokyo 106-8550, Japan	
GE Toshiba Silicones (Hong Kong) Co., LTD	Phone: 852-2629-0888	FAX: 852-2629-0803
GE Toshiba Silicones (Singapore) PTE. Ltd.	Phone: 65-326-3900	FAX: 65-326-3946
Taiwan Office	Phone: 886-2-719-0510	FAX: 886-2-2719-9903