

## SNAPSIL™ TSE3826 HEAT RESISTANT SILICONE ADHESIVE SEALANT

SNAPSIL TSE3826 is a one-component, oxime cure, silicone adhesive sealant for high temperature application. TSE3826 cures at room temperature with moisture in the air and bonds to most materials, such as metals, plastics, ceramics and glass without the use of primers.

### Key Features and Typical Benefits

- Excellent high temperature resistance; approved UL746 Temperature Index: 200°C (File No: E56745)
- 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

### Typical Property Data (JIS K 6249)

Typical Uncured Properties		
Appearance		Thixotropic paste, reddish brown
Tack-free Time (23°C)	minutes	10
CURED PROPERTIES (7 days @ 23°C / 50%RH)		
Appearance		Reddish brown, elastic rubber
Density	g/cm <sup>3</sup>	1.04
Hardness (Type A )		29
Tensile strength	MPa	2.0
Elongation	%	400
Adhesive strength* <sup>1</sup>	MPa	1.4
Volume resistivity	Ω·cm	1 x 10 <sup>15</sup>
Dielectric strength	kV/mm	23
Dielectric constant (60Hz)		2.9
Dissipation factor (60Hz)		0.004

\*1: Aluminum Lap shear    Typical property data values should not be used as specifications.

### **Potential Applications**

- Sealing and encapsulating of heating elements in appliances
- Electric insulation required heat resistance
- General adhesive for metals, glass, plastics, etc

### **Adhesion Performance**

SNAPSIL TSE3826 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 TSE3826 used with ME121, ME123 or without a primer.

SUBSTRATE	NO PRIMER	ME121	ME123
<b>Metals</b>			
Copper	*1	0*2	
Steel	0	0	
Mild steel	0	0	
Brass	*1	0*1	
Stainless steel		0	
Pure aluminum	0	0	
Corrosion-resistant aluminum	0	0	
Galvanized sheet iron	0	0	
Tin plate	0	0	
<b>Plastics</b>			
Acrylic resin	0		0
Phenolic resin	0		0
Epoxy resin	0		0
Soft polyvinyl chloride	'		0
Rigid polyvinyl chloride	0		0
Polyester film	0		0
Unsaturated polyester resin	0		0
Polyimide	0		0
ABS resin	0		0
Polyethylene	'		'
Polypropylene	'		0*2
Fluoride resin	'		'
Silicone varnish laminate	0		0
Silicone varnish coated glass cloth	0		0
<b>Rubbers</b>			
Chloroprene	'		0
Nitril			0
Styrene butadiene			0
Ethylene propylene			0
Silicone	0		0
<b>Inorganic materials</b>			
Glass	0	0	
Ceramic	0	0	
<b>Wood</b>			
Cedar	0	0	
Cypress	0	0	
Lauan			

Note

0: Excellent (Cohesive failure 100%)

: Not sufficient

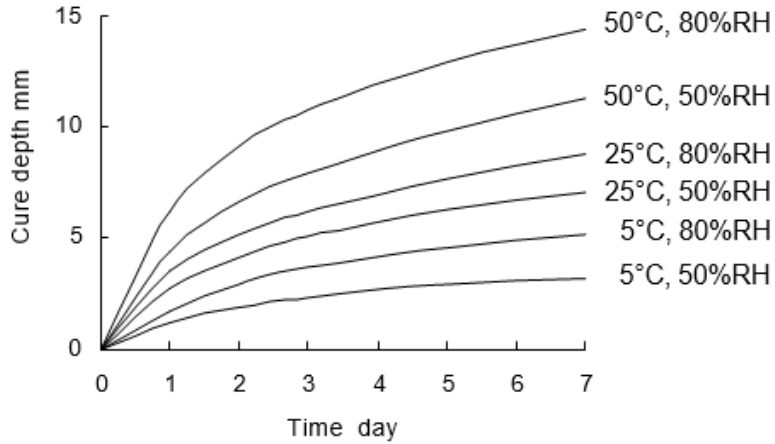
ˆ: Poor (Cohesive failure 0%)

\*1: Corrosion may occur depending on the application

\*2: When using XP80-A5363 as a primer

Do not apply to Polycarbonate due to solvent crack

**CURING PROPERTIES**

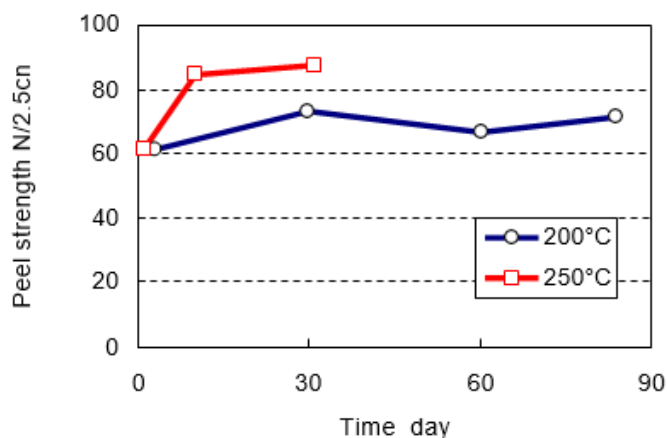


**HEAT RESISTANCE**

**PHYSICAL PROPERTIES**

CONDITION	200°C		250°C	
	30days	90days	30days	90days
PROPERTIES				
Hardness change (Type A)	-3	-4	-2	+6
Tensile strength change %	-5	-25	-15	-30
Elongation change %	+15	-3	+5	-35

## ADHESION PROPERTIES



## CHEMICAL RESISTANCE

PROPERTIES CHEMICALS	Hardness change (Type A)	Tensile strength change %	Elongation change %	Adhesion strength change <sup>*1</sup> %	Volume change <sup>*2</sup>
0.1% NaOH	0	-15	-15	-30	☐
2% H <sub>2</sub> SO <sub>4</sub>	+1	-10	-8	-30	☐
3% NaCl	0	-10	-10	0	☐
Acetone	-1	+5	+8	0	
IPA	+1	+25	+23	-30	☐
Ethyl acetate	+3	+30	+18	-10	×
Cyclohexane	-2	+30	+23	-40	×

Test condition: immersed 14days at R.T. and measured after air-drying for 24hours

\*1: Aluminum lap shear; Non-primer; All specimens exhibited 100% cohesive failure

\*2: Observed dipped samples; ☐: almost no change; ☐: small change; ◻: medium change;  
×: large change

## Packaging

- 100g tube available in cases of 20
- 333ml cartridge available in cases of 50 (5 boxes of 10 cartridge)

## Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the 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

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### Limitations

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

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