

## — Preliminary Product Data ———

Liquid-Dispensed Silicone Thermal Pad / GapFiller

# SilCool\* TIA282GF (XE14-TM009)

**XE14-TM009** is a 2-component, soft, thermally conductive silicone material that is designed to dissipate heat from electronic devices. Its non-slumping pasty consistency provides physical stability for optimized processing. XE14-TM009 can be used as liquid dispensed alternative to pre-fabricated Thermal Pads, for a broad array of thermal designs in electronic applications.

## **KEY FEATURES**

- High thermal conductivity
- Fast, low temperature cure
- Convenient 1:1 mix ratio by weight
- Retains softness after cure to contribute to stress relief during thermal cycling
- Good slump resistance (stays in place)
- Repairable

## TYPICAL PROPERTIES

UNCURED PROPERTIES		XE14-TM009 (A)	XE14-TM009 (B)
Appearance (Part A & B)		pink	pale pink
Viscosity *1	Pa·s	240	235
Mix ratio by weight		1:1	
Viscosity *1 after mixing	Pa·s	275	
Thixo Index		1.3	
Work Life @ 23°C	Hours	1	
Cure conditions	Hours		
@ 70°C		1	
@ 23°C		24	
<b>CURED PROPERTIES</b> (1 hour @ 7	0°C)		
Appearance		pink	
Density (23°C)	g/cm³	3.1	
Thermal conductivity *2	W/m·K	8.2	
Thermal resistance *3	mm²•K/W	15 (BLT: 100 μm)	
Minimum bond line thickness	μm	75	
Hardness (Type E)		3	30
Hardness (Shore 00)		4	10
Dielectric strength	kV/mm	14	
Low volatile (D <sub>4</sub> -D <sub>10</sub> )	ppm	tbd	

<sup>\*1:</sup> Plate-plate rheometer / \*2: Hot disk method / \*3: ASTM D5470

Typical properties / These values are not intended for use in preparing specifications.





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#### TYPICAL APPLICATIONS

Thermal interface for electronic components in Automotive, Consumer, Telecommunication, Lighting and Industrial applications

## **GENERAL INSTRUCTIONS:**

#### HANDLING AND SAFETY

- Materials such as water, sulfur, nitrogen compounds, organic metallic salts, phosphorus compounds, etc. contained in the surface of the substrate can inhibit curing. A sample patch should always be conducted before proceeding to determine compatibility.
- Wear eye protection when handling uncured rubber as it can irritate eyes. In case of eye contact, immediately flush eyes well with water and contact a physician.
- Maintain adequate ventilation 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

#### OPTION for GLASS BEADS

 Glass Bead versions for BLT control can be made available upon request (typically sizes 180µ and 250µ)

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