

SILCOOL™ TIA268GF LIQUID-DISPENSED SILICONE THERMAL PAD / GAP FILLER

Product Description

SILCOOL TIA268GF silicone is a 2-component, soft, thermally conductive material that can dissipate heat from electronic devices. Its non-slumping pasty consistency can provide physical stability for optimized processing. It can be used as liquid dispensed alternative to pre-fabricated thermal pads, for a broad array of thermal designs in electronic applications.

Key Features and Typical Benefits

- 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 Physical Properties

UNCURED PROPERTIES		TIA268GF (A)	TIA268GF (B)
Appearance (Part A & B)		pink	pale pink
Viscosity * ¹	Pa·s	240	255
Mix ratio by weight		1 : 1	
Viscosity * ¹ after mixing	Pa·s	250	
Thixo Index		1.5	
Work Life @ 23°C		1	
Cure conditions			
@ 70°C	Hours	1	
@ 23°C		24	
CURED PROPERTIES (1 hour @ 70°C)			
Appearance		pink	
Density (23°C)	g/cm ³	2.9	
Thermal conductivity * ²	W/m·K	6.8	
Thermal resistance * ³	mm ² ·K/W	10 (at min. BLT)	
Minimum Bond Line Thickness		μm	
Hardness (Type E)		35	
Hardness (Shore 00)		60	
Tensile strength	MPa	0.05	
Elongation	%	60	
Dielectric strength	kV/mm	15	
Low volatile (D ₄ -D ₁₀)	ppm	100	

*1: Measured at 20°C with 20mm plate/plate rheometer / *2: Hot disk method / *3: ASTM

Typical properties are average data and are not to be used as or to develop specifications.

Potential Applications

Thermal interface for electronic components in automotive, consumer, telecommunication, lighting and industrial applications

General Considerations for Use

- 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.

Option for Glass Beads

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

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

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

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

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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