

SILCOOL™ TIA225GFB-25

LIQUID DISPENSED THERMAL PAD / GAPFILLER

Product Description

SILCOOL™ TIA225GFB-25 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. TIA225GFB-25 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

- Good thermal conductivity
- Fast low-temperature cure
- Retains softness after cure to enhance stress relief during thermal cycling
- Easy to use 1:1 mixing ratio
- Conforms to complex shapes of three-dimensional interface designs
- Repairable
- Flame retardant: UL94V-0 equivalent
- Glass beads for bond line thickness (BLT) control (250μ)

Typical Physical Properties

PROPERTIES before cure (23°C, 50% RH)	UNIT	SILCOOL TIA225GFB-25 (A)	SILCOOLTIA225GFB-25 (B)
Appearance		BLACK	GRAY
Viscosity *	Pa·s	200	200
Mixing ratio by weight or volume		100:100	
Viscosity after mixing (A/B) *	Pa·s	200	
Thixo Index		1.4	
Work life @23°C	h	4	
Cure condition (70°C)	h	0.5	
Cure condition (23°C)	h	24	
PROPERTIES after cure (30min @ 100°C)			
Appearance		BLACK	
Density	g/cm ³	2.9	
Hardness	Shore E	50	
	Shore 00	70	
Thermal conductivity * ¹	W/m·K	2.5	
Thermal resistance * ²	mm ² ·K/W	35 (BLT: 50μm)	
Tensile strength	MPa	0.4	
Elongation	%	70	
Volume resistivity	MΩ·m	1.5 × 10 ⁶	
Flame retardancy	UL 94	V-0 equivalent	
Relative Temperature Index	RTI	150°C equivalent	
Low Volatile Siloxane	ppm	150	
Dielectric Strength	kV/mm	20	

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

*1: Hot wire method / *2: In-house test method/ *: Rheometer

General Considerations for Use

Material such as water, sulfur, nitrogen compounds, organic metallic salts, phosphorus compounds, etc.

Contain 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.

Store in a cool, dry place out of direct sunlight & keep out of the reach of children

After storage physical forces within the material can lead to a temporary surface hardening. This effect is reversible, and the original state can be restored by following a short rework procedure (please refer to handling guidelines or reach out to Momenitive for recommendations).

Package

- 200z SEMCO Cartridge
- 20L Plastic Pail

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

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. Momenitive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momenitive.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 Momenitive Performance Materials products and make their own determination as to fitness of use in their particular applications.

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