

SILCOOL™ TIA223G-DG Thermally Conductive Silicone

Product Description

SILCOOL TIA223G-DG is a 2-component, thermally conductive material for encapsulating, gap filling, and for use as a thermal path to heat sinks. The flowability of TIA223G-DG allows it to conform to complex three-dimensional shapes and cavities in potting applications, while also enabling it to be transferred in a thin layer as a liquid-dispensed alternative to thermal pads. SILCOOL TIA223G-DG quickly cures to a soft rubber gel with exposure to heat, and will also cure at room temperature.

Key Features and Typical Benefits

- Good thermal conductivity
- Fast cure with exposure to heat
- Easy to use 1:1 mixing ratio by weight or volume

Typical Physical Properties

Criteria		Properties	
		Part A	Part B
Color		Dark Gray	Light Gray
Mixing Ratio (by weight or volume)		100:100	
Viscosity (23°C) (after mixing)	Pa·s	40	
Pot Life	h	0.5	
Cure Condition (with heat)	°C/h	70 / 0.5	
Cure Condition (room temperature)	h	4	
Post-Cure Properties			
Density (23°C)	g/cm ³	2.79	
Thermal Conductivity* ¹	W/(m·K)	2.1	
Hardness (type E)		45	
Volume Resistivity	MΩ·m	4.8x10 ⁶	
Dielectric Strength	20kV/mm	20	
CTE	ppm/K	140	
Low Volatile Siloxane (D ₃ -D ₁₀)	ppm	<200	
*1: Hot wire method			

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

General Considerations for Use

Handling & Safety:

- Parts A and B should each be stirred before mixing together, as filler sedimentation may occur during storage.
- Deaerate the mixture for 5 to 10 minutes to remove air entrapped during mixing.
- Wear eye protection and protective gloves as required while handling the product.
- Use the product in a well ventilated area.

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 dark, cool place out of direct sunlight.

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 application(s).

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