

SILCOOL™ TIA213G THERMALLY CONDUCTIVE SILICONE RUBBER

Product Description

SILCOOL TIA213G is a two-component, heat curable silicone rubber that can be used for thermally conductive applications. Its low viscosity allows the material to flow into narrow gaps, and it can conform to intricate shapes of thermal interfaces. It can also contribute to the reduction of contact interference in complex designs. SILCOOL TIA213G quickly cures with exposure to heat to form an elastic, thermally conductive rubber that can help relieve stress on critical electronic components.

Key Features and Typical Benefits

- Soft, elastomeric rubber properties
- Convenient 1:1 mix ratio by weight
- Outstanding stress relief
- Heat accelerated or room temperature cure
- Good thermal conductivity
- Resistance to temperature extremes
- Non-corrosive to metal

Typical Physical Properties

UNCURED PROPERTIES		TIA213G (Part A)	TIA213G (Part B)
Appearance		Gray	White
Mix ratio by weight		1 : 1	
Viscosity Part A	mPa·s	5500	
Viscosity Part B	mPa·s	4500	
Viscosity after mixing	mPa·s	5000	
Work Life @ 23°C	Minutes	90	
Cure Time @ RT	Hours	24	
Cure Time @ 70°C	Hours	0.5	
Cure Time @ 120°C	Hours	0.3	

CURED PROPERTIES (30 minutes @ 70°C)		
Appearance		Gray
Density (23°C)	g/cm ³	2.01
Heat Cure Time (T90) at 70°C	Minutes	30
Hardness (Type E) Hardness (Type A)		44 22
Tensile strength	MPa	0.2
Thermal conductivity *1	W/mK	1.3
Dielectric strength	kV/mm	18

*1: Hot wire method

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

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.
- Stir Parts A and B prior to mixing, as filler sedimentation may occur during storage.
- 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 workplace at all times.
- Store in a cool, dry place out of direct sunlight & keep out of the reach of children

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. 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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