

SilCool™ TIA0260

Description

TIA0260 is a one-component silicone adhesive that cures on exposure to atmospheric moisture at room temperatures to form a thermally conductive silicone rubber. The product offers corrosion-free adhesion to metals, including copper, plastics, ceramics, glass, etc. without the use of primers.

Key Features and Typical Benefits

- High thermal conductivity
- Low volatility: reduced low molecular siloxane content
- Non-corrosive to metals (including copper)
- One-component, fast alkoxysilane cure
- Flame retardant (UL94 V-0, File No. E56745)

Typical Physical Properties

<u>Property</u>	<u>Unit</u>	<u>Value</u>
Uncured Properties		
Appearance, Color		Semi-flowable, light gray paste
Viscosity	Pa•s	150
Tack free time (23 °C)	min	10
Cured Properties (7 days at 23 °C, 50% RH)		
Thermal Conductivity	W/m•K	2.6
Thermal Resistance (BLT)	mm ² •K/W	18 (50 μ m)
Density	g/cm ³	3.01
Hardness (Type A)		90
Tensile Strength	MPa	4.8

Elongation	%	20
Adhesive Strength	MPa	3.0
Volume Resistivity	MΩ·cm	7.0 x 10 ⁶
Dielectric Strength	kV/mm	20
Low Volatile Siloxane (D ₄ - D ₁₀)	wt%	0.001

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

Thermal Resistance and BLT

Initial_TIA0260

Note: Test data. Actual results may vary.

General Considerations for Use

While the typical operating temperature for silicone materials ranges from -45°C to 200°C, the long-term maintenance of its initial properties is dependent upon design related stress considerations, substrate materials, frequency of thermal cycles, and other factors.

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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