

Thermal Management Silicones

Experience the SilCool* product portfolio and other silicone solutions

Momentive Performance Materials provides leading-edge silicone technologies to help meet performance and productivity challenges in a wide range of automotive and electronic applications.

Long term, reliable protection of sensitive electronic components is essential to many applications today. Increasingly small systems and rising circuit densities have resulted in higher operating temperatures, and driven demand for high-performance solutions for heat dissipation.

SILCOOL* THERMAL INTERFACE MATERIALS

MAXIMIZING OPERATIONAL EFFICIENCY OF HEAT-SENSITIVE COMPONENTS

In response to new heat-management challenges arising from the higher frequencies, power and miniaturization of today's electronic devices, Momentive scientists have developed and continue to enhance our SilCool thermal interface materials. The excellent thermal conductivity and consistent, long-term heat transfer performance typically provided by SilCool products typically help enable such devices to operate more efficiently and reliably.

www.momentive.com/brands/silcool

Key Features

- Good mechanical properties
- Property stability under harsh operating conditions
- Low thermal resistance at thin bond lines
- Very fast cure

Typical Benefits

- Reliability
- Compensate CTE mismatch
- Extended component life
- High productivity

Potential Applications

- Power modules
- Sensors
- Board assemblies
- LED assemblies

Thermal Management Materials Typical Properties

(selected grades only; please contact us for material selection support)

Product	System (1)	Type	Cure Time(2)	Thermal Cond. (W/m.K)	Color	Flowability	Feature
SilCool TIG210BX	TIG	Compound	n.a.	2.1	Grey	Non-flowable	Low bleed grease
SilCool TIG830SP	TIG	Compound	n.a.	4.1	Grey	Non-flowable	Screen printable grease
XE11-B5320	CC, 1K	Adhesive	TFT 5 min at RT	1.3	White	Non flowable	Adhesion at RT
SnapSil* TN3085	CC, 1K	Adhesive	TFT 7 min at RT	0.7	Grey	Non-flowable	Non-sag, thermally conductive
SilCool TIA208R	AC, 2K	Potting	30 min at 70 °C	0.7	Black	Flowable	Good primerless adhesion with both heat & room temperature cure
SilCool TIA216G	AC, 2K	Potting	30 min at 70 °C	1.6	Grey	Flowable	Low viscosity, high thermal potting
SilCool TIA222G	AC, 2K	Potting	30 min at 70 °C	2.2	Grey	Flowable	20 Pa.s; tacky adhesion; UL94-V0
SilCool TIA241GF	AC, 2K	Gap filler	30 min at 70 °C	4.1	Blue	Non-flowable	High thixo, slump resistant, liquid dispensed, low hardness
SilCool TIA250RZ	AC, 1K	Adhesive	30 min at 120 °C	2.5	Grey	Semi-flowable	Semi-flowable, thixotropic
SilCool TIA350R	AC, 1K	Adhesive	30 min at 120 °C	3.5	Grey	Flowable	Semi-flowable, heat cure adhesive
SilFas* SDI3578	1K	Adhesive	60 min at 150 °C	3.5	Grey	Semi-flowable	50% elongation, great coverage
SilCool TGX450	1K	Gel	pre-cured	4.5	Pink	Non-flowable	High TC; vertical position stability

(1) AC = Addition Cure / CC = Condensation Cure / TIG = Thermal Interface Grease (2) TFT = Tack Free Time

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

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For more information and sampling inquiries, please visit momentive.com/CustomerService

Patent Status

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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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