

C1055 & C1060

Phase Change Thermal Interface Materials

Saint-Gobain Performance Plastics **ThermaCool® C1055** and **C1060** are thermally conductive products designed to exhibit exceptional viscoelastic (creep and flow) properties. These “dual behaviors” of viscosity and elasticity determine conformability. Minimal force is required for this material to flow and achieve total wet-out. As temperature decreases the material does not stiffen. As temperature increases the material does not soften. The modulus remains uniform between 0°C and 130°C. These unique viscoelastic properties of the C1055, combined with the inherent low thermal resistance, insure minimal contact resistance and a highly effective path for heat dissipation.

Physical Properties

Property	Test Method	C1055	C1060
Color	N/A	Orange	Orange
Thickness, nominal (mils)	ASTM D374	3.0	3.5
Phase Change Temperature (°C)		45	45
Thermal Conductivity (W/mK)	ASTM E1530	1.0	0.7
Thermal Impedance (°C in. ² /W)	ASTM E1530	0.04	0.1
Adhesive	—	—	Silicone
Reinforcement	—	—	Fiberglass

All properties are typical values and should not be used for writing specifications.
US Patent Number 6,391,442 with others pending.

Recommended Uses

ThermaCool™ C1055 and C1060 may be used as a replacement for thermal greases where low thermal impedance, thin bondlines and electrical isolation are required.

Availability

This high performance thermal management compound can be supplied as:

- **C1055**—Free standing film on a tabbed bandoleer for easy application.
- **C1060**—Fiberglass reinforced phase change film with silicone adhesive on a tabbed bandoleer for easy application.

Limited Warranty: For a period of 6 months from the date of first sale, Saint-Gobain Performance Plastics Corporation warrants this product(s) to be free from defects in manufacturing. Our only obligation will be to provide replacement product for any portion proving defective, or at our option, to refund the purchase price thereof. User assumes all other risks, if any, including the risk of injury, loss or damage, whether direct or consequential, arising out of the use, misuse, or inability to use this product(s). SAINT-GOBAIN PERFORMANCE PLASTICS DISCLAIMS ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

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Features/Benefits

- Different formats allow tailoring to specific applications
- High conformability and flexibility allows for uniform fill of interface interstices.
- Advanced phase change formulation allows rapid “burn in” and prevents thermal overshoots or spikes
- Superior viscoelastic stability over wide range of temperatures is superior to thermal grease properties

Applications

- Computers (MPU/heat sink)
- Microelectronics
- Displays
- Telecommunications
- Electronic Modules for Power Devices

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