

# C1100 Series

## Phase Change Thermal Interface Materials

Saint-Gobain Performance Plastics **ThermaCool® C1100** family of high performance phase changing compounds are self adhering to the heat sink at room temperature. This adhesive quality also creates a conformable interface between the sink and MPU, dramatically improving heat transfer. These materials can be supplied in a number of formats to meet a wide range of performance applications.

### Physical Properties

Property	Test Method	C1100	C1100F
Color	Visual	White	White/Silver
Backing	—	None	Thin-gauge Aluminum
Thickness, nominal (mils)	ASTM D374	3.0	4.0 & 6.0
Phase Change Temperature (°C)	—	35	35
Thermal Conductivity (W/mK)	ASTM E1530	1.0	1.0 Compound Only
Thermal Impedance (°C in. <sup>2</sup> /W)	ASTM E1530	0.03	0.05
Thermal Resistance (°C/W)	(internal test method)	0.07	0.17
Bond Line Adhesion (psi)	ASTM D897	Application Dependant	0
Adhesion to Steel (grams/inch)	PSTC-1	125	125

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® C1100 and C1100F 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 in several formats:

- **C1100**—Free standing film on a tabbed bandoleer for easy application.
- **C1100F**—Foil backed film to prevent sticking to the internal heat spreader for improved shock and vibration performance.

Both C1100F and C1100 are supplied as die cut parts on a bandoleer roll, tabbed for convenient 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
- Excellent thermal transfer in all formats providing best in class performance (C1100)
- Unique tab design allows for easy in re-workability without damage to sensitive components (C1100F)
- Die cut to size parts enable rapid pick-and-place assembly
- Advanced phase change formulation allows rapid “burn in” and prevents thermal overshoots or spikes
- Intrinsically tacky formulation does not require heating of heat sink during assembly

### Applications

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

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AFF-1279-PDF-0307-SGCS