

TC3002

Gap Filler

Thermal Interface Materials

Saint-Gobain Performance Plastics **ThermaCool™ TC3002** is a high performance gap filler product. It is a low modulus thermally conductive silicone rubber filled with thermally conductive, electrically isolating material. It is extremely conformable, naturally tacky and hence results in very low thermal resistance values. The product is available as free standing materials with reinforcements optional.

Physical Properties

Property	Test Method	TC3002
Color	Visual	Red
Support Options	—	None Fiberglass Aluminum
Thickness, nominal (mils)	ASTM D374	15–220
Thermal Conductivity (W/mK)	ASTM E1530	1.6
Thermal Impedance (°C in. ² /W)	ASTM E1530	1.2
Hardness (Shore A)	ASTM D2240	25–30
Volume Resistivity (ohm-cm)	ASTM D257	4 x 10 ¹³
Dielectric Strength (volts/mil)	ASTM D149	300
Operating Temperature (°C)	—	-54 to 200
UL Listing Recognition	UL94	V-0

*All properties are typical values and should not be used for writing specifications.
Patent pending.*

Recommended Uses

TC3002 is offered to fill the needs of an unsupported thermal transfer material in applications requiring clean release, enhanced thermal performance by filling air gaps and electrical isolation.

Availability

This high performance thermal management compound can be supplied in several formats:

- Fiberglass or aluminum foil reinforcement available—please call for availability.
- Sheet stock 24"x24" with no reinforcement.

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

- No cure cycle needed
- Extremely low durometer allows material to conform to irregular surfaces at low pressures (<10 psi) and fill air gaps between PC board and heat sinks
- High surface tack reduces thermal impedance and eliminates the need for an additional adhesive layer
- Very low thermal resistance
- Self supporting construction possible
- Repositionable
- Die cuttable

Applications

- **TC3002** easily molded into desired PCB topology with various heights of SMD components.
- **TC3002** well-matched for high volume low cost applications such as PC's, automotive etc.
- RAMBUS memory modules
- Electronic Modules for Power Devices for Power Supplies
- Computers
- Telecommunication
- Automotive Electronics
- Electrical Insulation
- Military
- Medical
- Heat Pipe Assemblies
- CD ROM Cooling

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