

TC3005 HCT

Gap Filler

Thermal Interface Materials

Saint-Gobain Performance Plastics **ThermaCool™ TC3005 HCT** 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 result in very low thermal resistance values. The product is available as free standing materials with reinforcements optional.

Physical Properties

Property	Test Method	TC3005 HCT
Color	Visual	Light Red
Support Options	—	None Fiberglass Aluminum
Thickness, nominal (inch)	ASTM D374	15–200
Thermal Conductivity ($W m^{-1}K^{-1}$)	ASTM E1530	2.0
Thermal Impedance ($^{\circ}C in.^2/W$)	ASTM E1530	1.2
Hardness (Shore A)	ASTM D2240	5–10
Volume Resistivity (ohm-cm)	ASTM D257	4×10^{13}
Dielectric Strength (volts/mil)	ASTM D149	300
Operating Temperature ($^{\circ}C$)	—	-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

TC3005 HCT 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 providing 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 enhances thermal impedance and eliminates the need for a additional adhesive layer
- Very low thermal resistance
- Self supporting construction possible
- Repositionable
- Rigid enough to die cut

Applications

- **TC3005 HCT** 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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