

## ThermaCool™ TC3002 Gap Filler

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 material with reinforcement optional.

### Features/Benefits

- No cure cycle needed
- Extremely low durometer allows material to conform to irregular surfaces at low pressures (<69 kPa) and fill air gaps between PCB 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
- Rigid enough to die-cut

### Typical Properties

Property	TC3002	Test Method
Colour	Grey	—
Support Options	Fibreglass, Aluminium	—
Available Thicknesses mm (in.)	0.38 to 5.08 (0.015 to 0.200)	ASTM D374
Thermal Conductivity W/m <sup>-1</sup> k <sup>-1</sup>	1.6	ASTM E1530
Thermal Impedance °C in. <sup>2</sup> /W	1.2	ASTM E1530
Hardness Shore A	25 to 30	ASTM D2240
Volume Resistivity ohm-cm	4 x 10 <sup>13</sup>	ASTM D257
Dielectric Strength volts/mil	300	ASTM D149
Operating Temperature °C	-54 to +200	—
UL Listing Recognition	V-0	UL94

**Applications**—TC3002 is used as an unsupported thermal transfer material in applications requiring clean release, enhanced thermal performance by filling air gaps and electrical isolation. This product can be easily moulded into desired PCB topology with various heights of SMD components. TC3002 is well matched for:

- High volume, low cost applications such as PC and automotive industries
- RAMBUS memory modules
- Electronic modules for power devices for power supplies
- Telecommunications, military and medical applications
- Electrical insulation
- Heat pipe assemblies
- CD-ROM cooling

**Availability**—TC3002 is available in several formats:

- Fibreglass or aluminium foil reinforcement available—call for availability
- Sheet stock 610mm x 610mm with no reinforcement

Saint-Gobain Performance Plastics sales, fabrication and distribution facilities are situated at the following locations:

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