ThermaCool®

Thermal Interface Materials

ThermaCool® C1055/C1060

Phase Change Material

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, and as temperature increases the material does not soften. The modulus remains uniform between 0°C and 130°C. The unique viscoelastic properties of **C1055** and **C1060**, combined with the inherent low thermal resistance, ensure minimal contact resistance and a highly effective path for heat dissipation.

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

Typical Properties

Property	C1055	C1060	Test Method
Colour	Orange	Orange	—
Thickness mm (in.)	0.076 (0.003)	0.089 (0.0035)	ASTM D374
Phase Change Temperature °C	45	45	—
Thermal Conductivity $Wm^{-1}K^{-1}$	1.0	0.7	ASTM E1530
Thermal Impedance °C $in.^2/W$	0.04	0.1	ASTM E1530
Adhesive	None	Silicone	—
Reinforcement	None	Fibreglass	—

Applications—ThermaCool® C1055 and **C1060** may be used as a replacement for thermal greases where low thermal impedance, thin bondlines and electrical isolation are required, for example in:

- Computers (MPU/heat sink)
- Microelectronics
- Displays
- Telecommunications
- Electronic modules for power devices

Availability—This high performance thermal management compound can be supplied as:

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

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