

UniGraph 5000

Graphite Thermal Interface Material



UniGraph 5000 is formulated to deliver excellent thermal performance whilst keeping costs low thus making the material ideal for covering large surface areas. UniGraph 5000 is graphite based and designed to thermally connect metal to metal surfaces that require no electrical isolation. UniGraph 5000 is easy to handle and will deliver consistent and repeatable thermal performance. This provides a known and repeatable level of thermal conductivity which the application of grease is difficult to replicate.

Features

- Non-electrically isolating graphite thermal interface material
- Soft surfaces on both sides of the material work to reduce interfacial thermal resistance
- Excellent, no mess, alternative to thermal grease

Availability

- Standard thicknesses of 0.125mm, 0.25mm and 0.5mm
- Available as custom die-cut shapes and standard sheet sizes of 610mm x 457mm
- Can be supplied with an additional adhesive coating applied on one side

Benefits

- Consistent and repeatable thermal performance
- Cost effective thermal solution for a wide variety of applications that require no electrical isolation
- Easy to handle and apply
- Replaces messy to apply grease with no pump out or risk of drying out

Recommended Uses

- Thermally coupling metal backed PCBs to heatsinks, cold walls or nearby metal work
- Mounting an LED lighting module to a heatsink
- Automotive, power supply, motor drive and in applications where costs need to be kept to a minimum

Typical Physical Properties

Property (unit)	Test Method	UniGraph 5000 (0.125mm)
Colour	Visual	Black
Thermal Conductivity – Along Material (W/mK)	ASTM D5470	240
Thermal Conductivity – Through Material (W/mK)	ASTM D5470	5
Thermal Resistance (°C-cm ² /W @ 681KPa)	ASTM D5470	0.40
Operating Temp. (°C)	-	-220 to +300
Flame Rating	UL94	V-0

Mechanical Information

Property (unit)	Test Method	UniGraph 5000 (0.125mm)
Tensile Strength (PSI)	ASTM D412	650
Hardness (Shore A)	ASTM D2240	85
Outgassing CVCM (%)	ASTM E595	0.10
Density (g/cc)	-	2.20
Volume Resistivity (Ω-cm)	ASTM D257	11 x 10 ⁻⁵



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This material is often used in these industries:



Industrial



LED



Telecom



PSU

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