

A3000

Highly Durable, Wear Resistant Thermal Interface Material



A3000 is designed for repeated, re-use after disassembly of parts. Particularly good for sliding surfaces together whilst making electric isolation and achieving an excellent thermal interface. The material is constructed from a thermally conductive non-silicon structural adhesive and a high dielectric strength thermally conductive polymer in combination. The adhesive is bonded to one surface permanently whilst the polymer can connect the other surface thermally maintaining a high level of electrical isolation. The parts can be cleanly dis-assembled with the A3000 staying on one side whilst the polymer side separates cleanly. The A3000 is designed to be re-used.

A3000 thermally transfers heat across 2 surfaces maintaining high voltage electrical isolation whilst achieving mechanical wear resistance. Ideal for surfaces which slide together or parts which needs to be un-assembled leaving the thermal interface intact on one side whilst the other side is removed cleanly

Features

- Constructed from thermal conductive adhesive and a thermally conductive polyimide film on one side.
- Conformability fills micro air voids between mating surfaces reducing thermal resistance.
- Provides heat exchange between component and cooling mechanism

Availability

- A3300 is 0.0762mm polyimide + 0.25mm Adhesive
- A3200 is 0.0500mm Polyimide + 0.25mm Adhesive
- A3100 is 0.0380mm polyimide + 0.25mm Adhesive

Benefits

- The adhesive is permanently bonded to a variety of metal surfaces
- Robust and tested in a customer application to withstand 50g loadings in electric vehicle crash tests without electrical isolation breakdown.
- Simple to handle and apply

Recommended Uses

- Mounting high & mid-power LED modules to a heatsink
- To provide a fast and consistent method of attaching power components to a heat sink
- Electric vehicle cooling plates, wedge-lock applications
- A3000 adhesive is NOT suitable for painted or powder coated surfaces

Typical Physical Properties

Property (unit)	Test Method	A3000
Colour	Visual	White/brown
Thermal Conductivity (W/mK)	ASTM D5470	1.1
Thermal Resistance (K-cm ² /W)	ASTM D5470	3
Operating Temp (°C)	In House	-25 to +130

Mechanical and Electrical Properties

Property (unit)	Test Method	A3000
Sheer Adhesion	ASTM D-1002	3.5
Tensile Strength	ASTM 412	0.15
Breakdown Voltage	ASTM D149	>10,000
Shelf Life (months)	Visual	6
Flame Rating	UL94	V2



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This material is often used in these industries:



Industrial



LED



PSU



Automotive