

Bondline 1800

Thermal Adhesive Tape

Bondline 1800 is an electrically insulating, thermally conductive adhesive tape. Formulated with acrylic adhesive and ceramic fillers **Bondline 1800** delivers a strong structural bond, ideal for mounting LED light engines to heatsinks. Comprised of pressure sensitive adhesive, **Bondline 1800** will conform to surface imperfections between mating surfaces thereby obviating micro air-voids and reducing thermal resistance to a minimum.

Features

- Micro-air voids between connecting surfaces are minimised
- Delivers an electrically isolating structural bond
- Cost effective thermal adhesive tape

Availability

- Available in a standard thickness of 0.2mm
- Available as custom kiss-cut parts on rolls for starboards and as die-cut custom shapes

Typical Physical Properties

Property (unit)	Test Method	Bondline 1800
Colour	Visual	White
Thermal Conductivity (W/mK)	ASTM D5470	1.8
Thermal Impedance (°C-in ² /W)	ASTM D5470	0.50

Application Procedure

- Ensure both surfaces are clean
- Peel back glossy liner and apply material to heatsink surface. For maximum efficiency apply pressure between 100-150 psi for 5 seconds to guarantee good thermal wet-out
- Peel off second liner and place the power device surface on top of the exposed adhesive
- Apply pressure of 75 psi for at least 5 seconds to the device for best maximum results. Higher pressure increases the wet-out between the two mating surfaces

Benefits

- Offers a quick and simple bonding solution for LED light engines to a heatsink
- Excellent thermal conductivity combined with exceptional thermal performance

Recommended Uses

- Bonding LED FR4s to a heatsink
- Coupling any metal to metal surfaces
- To connect power supplies or power converters to heatsinks

Mechanical and Other Properties

Property (unit)	Test Method	Bondline 1800
Breakdown Voltage (Vac)	ASTM D149	>4000
Dead Static Shear Temperature (°C)	ASTM 412	>200
Lab Shear – 24 hour dwell (psi)	In House	>60
Shelf Life (months)	In House	12



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This material is often used in these industries:



Industrial



LED



PSU



Automotive

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