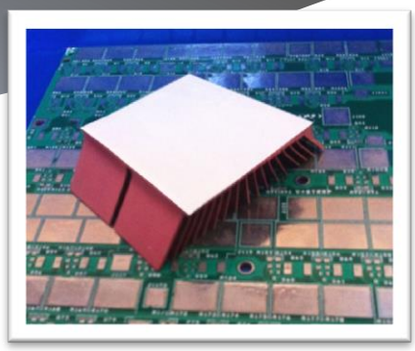
UniPhase 2500

Phase Change Interface Material



UniPhase 2500 is an electrically isolating phase changing thermal interface material, formulated to function as a superb alternative to messy and inconsistent thermal grease. Supplied as a dry compound coated onto a Kapton™ MT substrate, **UniPhase 2500** will flow at a phase change temperature of 60°C and conform to the differing surface textures between a heatsink and device. In combination with device mounting pressure and phase change flow, **UniPhase 2500** expels air voids at the interface helping to reduce thermal resistance. **UniPhase 2500** is supplied in die-cut preforms to suit a wide variety of electronic applications where a need for high dielectric strength is required, between any non-electrically isolated heat generating device and a heatsink.

Features

- Dry compound coated onto a Kapton™ MT substrate
- Offers high dielectric strength and cut-through resistance alongside efficient heat transfer
- Delivers a highly reliable and consistent thermal interface for demanding applications

Benefits

- Delivers a consistent and reliable thermal interface
- Mounting pressures and phase change flow expels air between uneven surfaces reducing thermal impedance
- Delivers a thin bond line between surfaces helping to improve thermal performance

Availability

- Supplied in custom die-cut preforms and pads on sheets or rolls
- Available in a variety of thicknesses to suit individual application requirements

Recommended Uses

- Typically used to thermally connect an electrically isolated heat generating component to a heatsink
- Within an application to replace thermal grease
- Power supplies and power modules

Physical Properties
(for a typical thickness)

Property (unit)	Test Method	UniPhase 2500
Total Thickness – includes compound and substrate (mm)	Visual	0.50
Max Operating Temp.(°C)	In House	+150
Thermal Conductivity (W/mK)	ASTM D5470	0.45
Thermal Impedance @ 20 psi (°C-cm²/W)	ASTM D5470	0.75
Phase Change Temperature (°C)	In House	60

Mechanical and Electrical Properties:

Property (unit)	Test Method	UniPhase 2000
Volumetric Expansion upon phase-change (%)	In House	15%
Tensile Strength (KPa)	ASTM D412	1.26×10^5
Volume Resistivity (Ω-cm)	ASTM D257	1×10^{14}
Dielectric Strength (VAC/mll)	ASTM D149	≤5000
Dielectric Constant	ASTM D150	4.0

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This material is often used in these industries:

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