EverTherm™

Technical Data Sheet

Phase Change Material (PCM)

EverTherm PCM Series is very soft and shapeable and exhibits excellent thermal conductivity in the vertical (z-plane) direction. This material is a solid material at room temperature. When exposed to 50-55°C it becomes a soft semi-flowing paste. This allows easy shaping conformation between 2 compressed surfaces. The material will return back into solid state when it reaches below 50-55°C temperature. It can also be customized into different shapes and sizes based on the requirements of the application.

Material Properties

- Excellent thermal conductivity in the vertical z-plane
- Strong interface wetting ability, long-term reliable thermal conductivity
- Good flexibility & compression ratio
- Effectively reduce the coating thickness of the material between the interface
- Flexible and can be easily converted to custom sizes
- Thin and lightweight

Applications

- Semiconductor device testing,
  - CPU, GPU, MCM
  Mobile phones & PC tablets, PCs, Servers, and cloud storage
- PDP, LED devices, IGBT Modules
- Optical communications equipment, medical equipment
- High frequency microprocessor
- Integrated Chip

EVSP350P

Item	Detection	Testing method
Color	Green	Visual
Reinforcement Carrier	**	***
Thickness (mm)	0.20-0.50	ASTM D374
(%) Elongation	40	ASTM D882A4
Tensile Strength (MPa)	49	ASTM D882A4
Continuous Use Temp (℃)	150	***
Phase Change Temp(℃)	55	ASTM D3418
Dielectric Breakdown Voltage(Vac)	8KV	ASTM D149
Dielectric constant(1MHz)	4.5	ASTM D150
Volume resistivity(Ω)		ASTM D257
Thermal conductivity(W/m.k)	1.8	ASTM D5470
Thermal Resistance (0.13mm,@10psi) 0.4 ^{o}C-in^{2}/W	0.4	ASTM D5470
RoHS	PASS	IEC 62321
Halogen	PASS	EN14582
REACH	PASS	EN14372
Standard Sheet Size		305mm x 305mm

Test fixtures using ASTM D5470. Recorded values include interface thermal resistance. These values are for reference only. The actual application performance is directly related to the applied surface roughness, flatness and pressure.

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