LiPOLY®
SHIU LI TECHNOLOGY CO.,LTD

PCM900

High-Performance Phase Change Thermal Interface Material

LiPOLY PCM900 is a high-performance Phase Change Material that remains solid at room temperature for easy handling and automated assembly. At approximately 45°C, it softens and conforms to microscopic gaps between the heat source and heat sink, effectively reducing thermal resistance and improving heat transfer efficiency. Formulated with advanced thermally conductive fillers and a reliable phase change matrix, PCM900 resists pump-out and dry-out, providing excellent long-term reliability while delivering thermal performance comparable to premium thermal greases. It offers a stable, efficient, and reliable thermal interface solution.

FEATURES

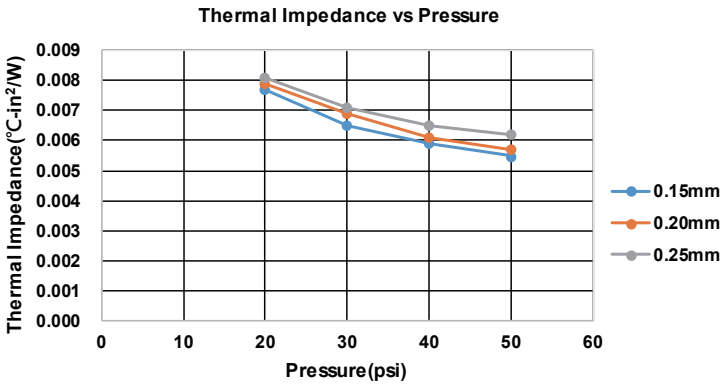
/ Thermal conductivity: 9.0 W/m·K , 45°C phase change, low thermal resistance
/ Min. BLT 24 μm, good wettability, gap filling
/ High reliability, pump-out resistant
/ Room-temp application, no dispensing required
/ Electrical insulation, high-power applications

TYPICAL APPLICATION

/ AI / HPC：AI Server、GPU
/ Data Center：Server、Network
/ Consumer：PC、SSD、Game Console
/ Power：Power Module、Power Supply
/ Automotive：ECU、BMS、OBC

SPECIFICATIONS

/ Roll form / Sheet form
/ Die-cut parts



TYPICAL PROPERTIES

PROPERTY	PCM900			UNIT	TEST METHOD
Color	Gray			-	Visual
Surface tack 2-side/1-side	2			-	-
Phase Change Temperature	45			°C	-
Thickness	0.15	0.20	0.25	mm	ASTM D374
Density	2.70	2.70	2.70	g/cm^3	ASTM D792
Bond Line Thickness	25	25	25	μm	-
Application temperature	-60~150	-60~150	-60~150	°C	-
ROHS	Compliant	Compliant	Compliant	-	-
ELECTRICAL@1.0mm					
Surface resistivity	>10^{12}			Ohm	ASTM D257
Volume resistivity	>10^{12}			Ohm-m	ASTM D257
Dielectric constant@10MHz D_k	17.7			-	ASTM D150
Dissipation factor@10MHz D_f	0.096			-	ASTM D150
THERMAL					
Thermal conductivity	9.0	9.0	9.0	W/m·K	ASTM D5470
Thermal impedance@50 psi	0.0051	0.0056	0.0062	°C-in²/ W	ASTM D5470

APPLICATION GUIDELINES

/ Apply adequate and uniform clamping pressure during installation to ensure full contact between the heat-generating device and the heat sink.

/ During initial operation, the material should be heated above its phase change temperature (45°C) to allow it to soften, wet the contact surfaces, and fill microscopic air gaps for optimum thermal performance.

/ Apply adequate and uniform clamping pressure during installation to allow PCM900 to achieve a typical 25 μm Bond Line Thickness (BLT), minimizing thermal interface resistance and maximizing heat transfer efficiency.

/ Ensure all contact surfaces are clean, flat, and free of dust, oil, or other contaminants before installation to achieve reliable thermal performance.

RELIABILITY

Test Property	Test Pressure (psi)	Thermal Aging 125°C				
		Initial	200 hrs	400 hrs	700 hrs	1000 hrs
Thermal Impedance	50	0.0056	0.0058	0.0060	0.0062	0.0063

Test Property	Test Pressure (psi)	Thermal HAST 85°C / 85%RH				
		Initial	200 hrs	400 hrs	700 hrs	1000 hrs
Thermal Impedance	50	0.0056	0.0056	0.0057	0.0058	0.0058

Test Property	Test Pressure (psi)	Thermal Cycling -40°C (30min) ⟷ +125°C (30min)				
		100 Cycles	200 Cycles	300 Cycles	400 Cycles	500 Cycles
Thermal Impedance	50	0.0056	0.0057	0.0058	0.0059	0.0059

Test Property	Test Pressure (psi)	Ultra Low Temperature -60°C				
		Initial	200 hrs	400 hrs	700 hrs	1000 hrs
Thermal Impedance	50	0.0056	0.0056	0.0057	0.0057	0.0057

Test method: ASTM D5470 , Specimen thickness = 0.20mm , Unit: °C-in²/W