Technical Data Sheet

Phase Change thermal interface material

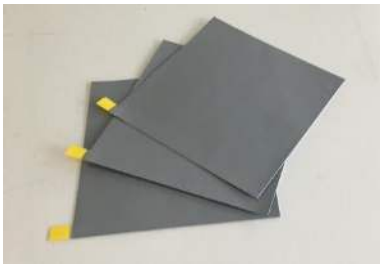
PCM 21-740

Version TDS.21-740.V.Preliminary

Description

PCM 21-740, phase change interface thermal material, is designed to maximize heat sink performance and improve component reliability. It minimizes thermal resistance at interfaces, maintaining excellent performance when it fills interfacial gaps and voids.

At room temperature, PCM 21-740 is solid and easy to handle. This allows it to be consistently and cleanly applied as dry pad to heat sink or component surface. Upon reaching its softening temperature of 50 °C, PCM 21-740 begins to soften and flow, filling the microscopic irregularities of the component it comes into contact with. The result is an interface with minimal bond-line thickness and thermal contact resistance.



Benefits

- Low thermal resistance
- Phase change ~50 °C
- Excellent interface wettability
- High reliability
- RoHS compliant

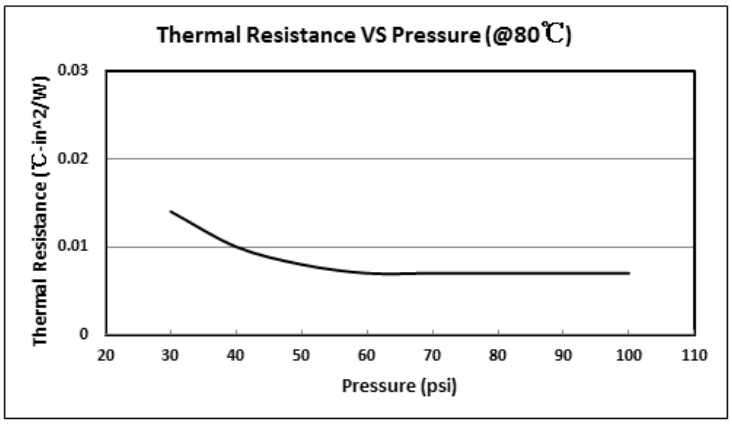
Applications

- CPUs (Notebooks, Desktops, Servers)
- Chipsets
- GPUs
- ASICS Chips

Typical Properties

Properties		21-740	Test Method
Thermal	Thermal Conductivity (W/m-K)	4.0	ASTM D5470
	Thermal Resistance @80 °C, 40 psi (°C-cm^2/W)	0.07	ASTM D5470
	Phase Change Softening Temp. (°C)	~50	DSC
	Continuous Use Temp. (°C)	-40~125	
Physical	Color	Grey	
	Standard Thickness (mm)	0.25~1.0	ASTM D374
	Density (g/cm^3)	2.6	ASTM D792
Electrical	Volume Resistivity (ohm-cm)	3*10^13	ASTM D257
Regulatory	Flammability Rating	V0	UL 94
	RoHS Compliant	YES	-

Thermal Resistance



Ordering Information

21 - 7 - 40 - XXX - YYYY

- 7: Type of material
- 40: Thermal Conductivity: 4.0 W/m-K
- XXX: Thickness
- YYYY: Size

Standard Size Pad: 12" x 8" (304mm x 203mm)

Declaimers

- The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the issuing date of this TDS. When using our products, no matter what type of equipment they might be used for, be sure to make a written agreement on the specifications with us in advance. The design and specifications in this TDS are subject to change without prior notice.
- Do not use the products beyond the specifications described in this TDS. This TDS explains the typical performance of the products as individual component. Before use, check and evaluate their operations when installed in your products.
- Install the following systems for a failsafe design to ensure safety if these products are to be used in equipment where a defect in these products may cause the loss of human life or other significant damage, such as damage to vehicles (automobile, train, vessel), traffic lights, medical equipment, aerospace equipment, electric heating appliances, combustion/gas equipment, rotating equipment, and disaster/crime prevention equipment.

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