

Keratherm Phase Change Materials: **PCM 471**



Kerafol's® PCM 471 film is a combination of hot-melt waxes with or without a carrier material.

The wax mixture in PCM 471 melts at various temperatures depending on its dimensions thereby filling even the smallest irregularities between the power module and heat sink. This creates an improved contact between the surfaces and increases the heat transfer. Its special design makes it easy to use and store. PCM 471 is optionally available with single-side adhesive.

ADVANTAGES

- combination of hot-melt waxes with or without support
- filling of smallest irregularities between the power module and heat sink
- melts at various temperatures
- improves the contact between the surfaces and increases the heat transfer
- special design for easy use and storage

APPLICATIONS

- Notebooks
- Desktop CPU's
- IGBT Units

DISCLAIMER: Purchaser shall be solely responsible for determining the adequacy of the product for any and all uses which the purchaser shall apply the product, and the application of the product by the purchaser shall not be subject to any implied warranty of fitness for that purpose.

Properties	symbol	unit	PCM 471
Color			gray
Compound			filled hot-setting wax
Thermal Properties			
Thermal Resistance	R_{th}	K/W	0.07
Thermal Impedance	R_{ti}	$^{\circ}\text{Cmm}^2/\text{W}$ Kin^2/W	25.6 0.039
Thermal Conductivity	λ	W/mK	4.0
Electrical Properties			
Breakdown Voltage	$U_{d;ac}$	KV	0.5
Dielectric Breakdown	$E_{d;ac}$	KV/mm	2.5
Mechanical Properties			
Measured Thickness ($\pm 10\%$)		mm	0.200
Hardness		Shore 00	70 - 80
Softening Interval		$^{\circ}\text{C}$	46
Continuous Operation Temperature		$^{\circ}\text{C}$	+125
Density		g/cm^3	1.82
Possible Thickness		mm	0.200

Thermal Resistance of PCM 471
in relation with the contact pressure

