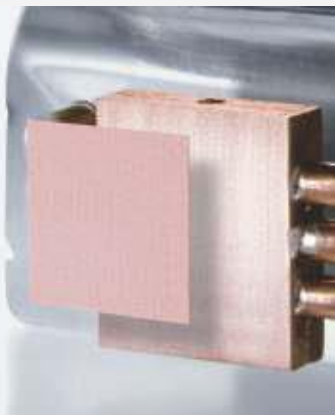**KERAFOL®**

Standard Films: **Keratherm Red**

This film is especially suitable for high-power applications It has excellent thermal electrical properties. Thanks to its good performance, the Keratherm red can be used reliably in densely packed electronic applications.

APPLICATIONS

- "High End" Thermal Solutions
- Controlling Boards
- BGA Applications
- Hard-Disk Drives

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**	**86/82** w/fiberglass	**86/83** w/fiberglass
Color			red	red
Thermal Properties				
Thermal Resistance	R_{th}	K/W	0.09	0.07
Thermal Impedance	R_{ti}	°Cmm²/W	35	31.2
		Kin²/W	0.05	0.04
Thermal Conductivity	λ	W/mK	6.5	8.0
Electrical Properties				
Breakdown Voltage	$U_{d;ac}$	kV	1.0	1.0
Dielectric Breakdown	$E_{d;ac}$	KV/mm	4.0	4.0
Volume Resistivity		Ωcm	2.0×10^{14}	5.9×10^{15}
Dielectric Loss Factor	$\tan \delta$	1	1.4×10^{-3}	3.0×10^{-2}
Dielectric Constant	ε_r	1	2.4	1.83
Mechanical Properties				
Overall Thickness (±10%)		mm	0.250	0.250
Hardness		Shore A	60 - 70	55 - 70
Tensile Strength		N/mm²	13	10
Elongation		%	2	2
Physical Properties				
Application Temperature		°C	-40 to +200	-40 to +200
Density		g/cm³	1.23	1.10
Flame class		UL	94V-0	-
Possible Thickness		mm	0.25 – 0.50	0.25 – 0.50

On request, these films can also be supplied with fiberglass reinforcement and with or without adhesive coating. The excellent thermal resistance of this film enables the optimum heat transfer to the heat sink.

Options for Keratherm Red (Standard Film):

Type	Film Structure	Overall Thickness	TML	Tensile Strength	Thermal Resistance	
		mm	Ma.-%	N/mm²	K/W	Kin²/W
86/82lb	86/82 with fiberglass and adhesive coating	0.250	**< 0.29**	10	0.14	0.09

The following thicknesses are available: 0.250 mm, 0.3 mm, 0.4 mm, 0.5 mm

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09/13