DATASHEET

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**	**86/81**	**86/82** w/fiberglass	**86/83** w/fiberglass
Color		red	red	red
Thermal Properties				
Thermal Resistance R_{th}	K/W	0.10	0.09	0.07
Thermal Impedance R_{ti}	°Cmm²/W Kin²/W	39 0.07	35 0.05	31.2 0.04
Thermal Conductivity λ	W/mK	5.5	6.5	8.0
Electrical Properties				
Breakdown Voltage $U_{d;ac}$	kV	1.0	1.0	1.0
Dielectric Breakdown $E_{d;ac}$	KV/mm	4.0	4.0	4.0
Volume Resistivity	Ωcm	2.0×10^{14}	2.0×10^{14}	5.9×10^{15}
Dielectric Loss Factor tan δ	1	1.9×10^{-3}	1.4×10^{-3}	3.0×10^{-2}
Dielectric Constant ε_r	1	2.3	2.4	1.83
Mechanical Properties				
Overall Thickness (±10%)	mm	0.200	0.250	0.250
Hardness	Shore A	30	65	55
Tensile Strength	N/mm²	0.6	20.0	10.0
Elongation	%	20	2	2
Physical Properties				
Application Temperature	°C	-40 to +200	-40 to +200	-40 to +200
Density	g/cm³	2.9	2.35	2.30
Flame class	UL	-	94V-0	-

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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