



## Keratherm FTC: 86/77



Heat conducting films manufactured by a special process with copper film (electrolyte) on one side. The beneficial properties of the heat-conducting film and copper create entirely new application possibilities, for example, active EMC protection or as a system carrier for electronic switches.

## APPLICATIONS

- Motor Control Units
- IGBT Controlling
- High Performance LED Arrays

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	86/77
Color			green/copper
Thermal Properties			
Thermal Resistance	$R_{th}$	K/W	0.90
Thermal Impedance	R <sub>ti</sub>	°Cmm²/W Kin²/W	227 0.35
Thermal Conductivity	λ	W/mK	1.1
Electrical Properties			
Breakdown Voltage	$U_{d;ac}$	kV	2.0
Breakdown Strength	$E_{d;ac}$	KV/mm	10.0
Mechanical Properties			
Overall Thickness (±10%	)	mm	0.300
Thickness of Copper Layer		mm	0.037
Hardness		Shore A	85
Tensile Strength		N/mm²	70
Elongation		%	15
Physical Properties			
Application Temperature		°C	-60 to +250
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e coating or with netting (one or two layers)



On these system carriers, power densities of 5-10 W/cm<sup>2</sup> can be realized. In this case the heat conductive silicone film carries the electrical conducting circuit paths in copper etching technique. The second conductor path layer, for example in resistors, capacitors or coils, can be produced by applying polymer paste pressure. In contrast to conventional circuit board technology, this method allows efficient production from a roll. The outstanding flexibility of the film permits the formation of interfaces and cable harnesses.

These system carriers for electronic switches represent state-ofthe-art design from an economical and ecological perspective.



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