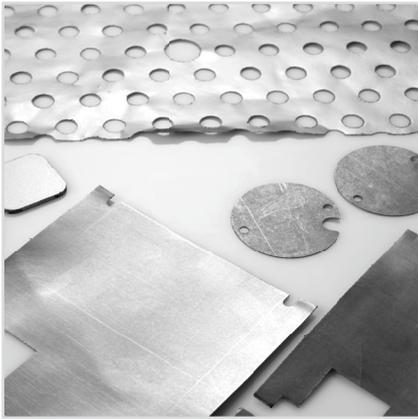


90/10, 90/15 & 90/20

100% pure graphite

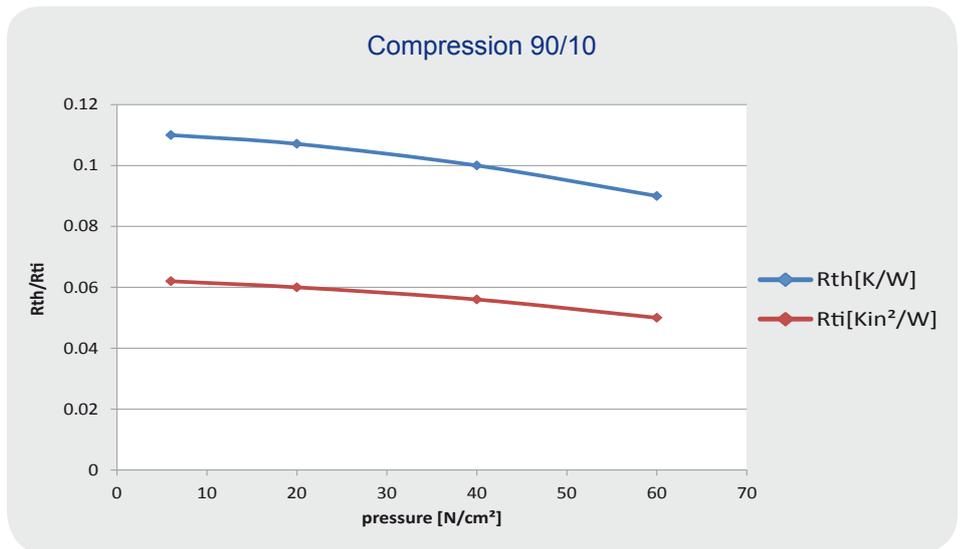


Graphite Films are based on 100% pure graphite. The films are available as uncoated types and, for specific applications, with filled adhesive or standard adhesives. Due to their high thermal conductivity they are used in the CPU sectors for example.

Properties	Unit	90/10
Colour		black
Thermal Properties		
Thermal resistance R_{th}	K/W	0.09
Thermal impedance R_{ti}	$^{\circ}\text{Cmm}^2/\text{W}$	36
	Kin^2/W	0.05
Thermal conductivity $\lambda z (x/y)$	W/mK	5.5 (200)
Electrical Properties		
Breakdown voltage $U_{d, ac}$	kV	conductive
Electrical resistance $z (x/y)$	$\Omega\mu\text{m}$	650 - 700 (6 - 8)
Mechanical Properties		
Measured thickness (+/-10%)	mm	0.200
Hardness	Shore D	25 - 35
Tensile strength	N/mm ²	5.5
Elongation	%	10
Physical Properties		
Application temperature	$^{\circ}\text{C}$	-40 to +500
Density	g/cm ³	> 1.0
Total mass loss (TML)	Ma. -%	0.01
Flame rating	UL-94	V-0
Possible thickness	mm	0.150 / 0.200

Applications

- chipsets
- memory chips
- micro BGA



Options

Type	Film structure	Overall thickness	Tensile strength	Thermal resistance	
		mm	N/mm ²	K/W	Kin ² /W
90/15	90/10 with filled adhesive	0.2	6.0	0.07	0.04
90/20	90/10 with standard adhesive	0.25	5.50	0.16	0.1

Important notes

The data presented in this leaflet are in accordance with the present state of our knowledge. All statements, technical information and recommendations herein are based on tests we believe to be reliable. The customer is thereby not absolved from carefully checking all supplies immediately on receipt. The recommendations made in this catalogue should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. Before using, user shall determine the suitability of the product for its intended use, and the user assumes all risks and liability whatsoever in connection there with. We reserve the right to alter product constants within the scope of technical process or new developments. The recommendations do not absolve the customer from the obligation of investigating the possibility of infringement of third parties right and, if necessary, clarifying the position. Sellers' and manufacturer' only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable either in tort or contract for any loss or damage, direct or incidental, or consequential, including loss of profits or revenue arising out of the use or the inability to use a product. No statement, purchase order or recommendations by seller or purchaser not contained herein shall have any force or effect unless in an agreement signed by the officers of the seller and manufacturer.

30-06-2014