KERAFOL®
Keramische Folien GmbH & Co. KG

SOFTTHERM®

Thermally Conductive Compressible Silicone Pad

Made In Germany

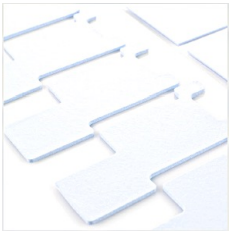
Overview:

SOFTTHERM® compressible thermally conductive silicone pad series are designed to be highly conductive that provide well-balanced thermal, electrical, dielectric and low outgassing behaviour, also provide good surface conformability with good inherent tack characteristics.
Applications that required better mechanical strength can be achieved through fiberglass reinforcement and adhesive coating is an optional availability.

Applications:

■ Automotive ■ Telecommunication ■ Power Supplies ■ Audio and Video Components ■ White Goods

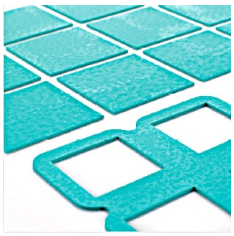
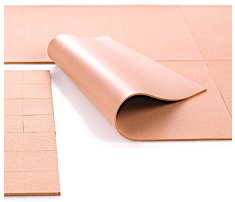


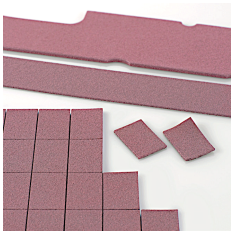
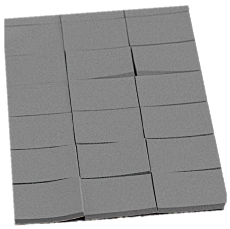




Non-Reinforced Compressible Thermally Conductive Silicone Pad

Properties	Unit	86/125	86/225	86/235	86/300	86/320	Test Method
Colour	-	Orange	Orange	Yellow	Blue	Yellow	Visual
Reinforcement	-	None	None	None	None	None	Visual
Thermal Properties							
Thermal resistance R_{th}	K/W	0.08	0.6	0.6	0.41	0.5	Kerafol
Thermal impedance R_{ti}	°Cmm²/W	322	240	240	164	147	Kerafol
	Kin²/W	0.5	0.37	0.37	0.25	0.23	Kerafol
Thermal conductivity λ	W/m-K	1.5	2.0	2.0	3.0	2.5	ASTM D5470
Electrical Properties							
Breakdown voltage $U_{d;ac}$	kV	6	6	6	7	5	ASTM D149
Dielectric breakdown $E_{d;ac}$	kV/mm	12	12	12	14	10	ASTM D149
Volume resistivity	Ωm	61.3×10^{9}	2.2×10^{11}	176.1×10^{9}	1.0×10^{11}	0.68×10^{12}	ASTM D257-3
Dielectric loss factor tan σ	1	153×10^{-3}	1.0×10^{-3}	20.2×10^{-3}	5.0×10^{-3}	29×10^{-3}	ASTM D150
Dielectric constant ε_r	1	4.28	3.6	3.7	3.3	3.4	ASTM D150
Mechanical Properties							
Measured thickness (+/-10%)	mm	0.500	0.500	0.500	0.500	0.500	ASTM D734
Hardness	Shore 00	10 - 25	30 - 45	25 - 40	60 - 75	25 - 38	ASTM D2240
Young's Modulus	N/cm²	23.6	58	32	24	32	ASTM D412
Physical Properties							
Operating temperature	°C	-40 to +180	-40 to +180	-40 to +180	-60 to +200	-40 to +180	Kerafol
Density	g/cm³	2.0	1.65	1.65	1.71	1.69	Kerafol
Flame rating	UL 94	VO	VO	VO	VO	VO	U.L. E140693
Total Mass Loss (TML)	Ma.-%	<0.29	<0.44	<0.10	<0.35	<0.46	ASTM E 595
Thickness available	mm	0.5 - 5.0	0.5 - 5.0	0.5 - 5.0	0.5 - 5.0	1.0 - 5.0	Kerafol

* Data provided are nominal values that should not be used to write specifications. Users are advised to test and decide the suitability of the product to fit their applications.

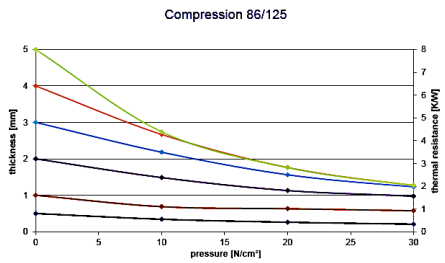



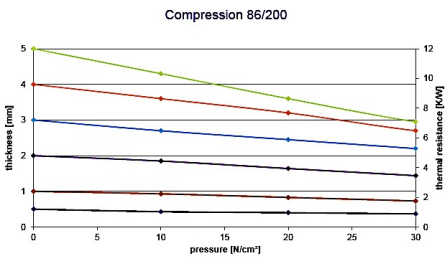



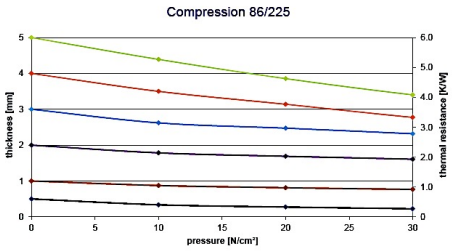
Non-Reinforced Compressible Thermally Conductive Silicone Pad

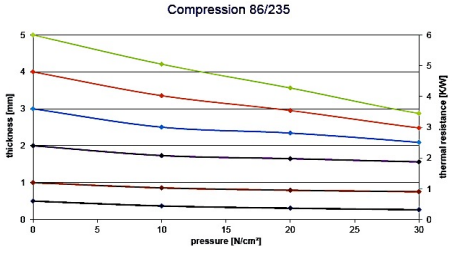
Properties	Unit	86/325	86/450	86/500	86/525	86/600	Test Method
Colour	-	Mint	Brown	Brown	Violet	Grey	Visual
Reinforcement	-	None	None	None	None	None	Visual
Thermal Properties							
Thermal resistance R_{th}	K/W	0.41	0.27	0.25	0.22	0.2	Kerafol
Thermal impedance R_{ti}	°Cmm^2/W	164	108	100	89	80	Kerafol
	Kin^2/W	0.25	0.18	0.15	0.14	0.12	Kerafol
Thermal conductivity λ	W/m-K	3.0	4.5	5.0	5.5	6.0	ASTM D5470
Electrical Properties							
Breakdown voltage $U_{d;ac}$	kV	6	5	1	1.25	1.5	ASTM D149
Dielectric breakdown $E_{d;ac}$	kV/mm	12	10	2	2.5	3.0	ASTM D149
Volume resistivity	Ωm	84.5 x 10^9	3.6 x 10^{12}	1.0 x 10^{11}	16 x 10^{12}	1.7 x 10^{10}	ASTM D257-3
Dielectric loss factor tan σ	1	145 x 10^{-3}	3.0 x 10^{-3}	1.5 x 10^{-3}	1.0 x 10^{-3}	2.0 x 10^{-3}	ASTM D150
Dielectric constant ε_r	1	3.77	2.5	3.9	2.7	2.5	ASTM D150
Mechanical Properties							
Measured thickness (+/-10%)	mm	0.500	0.500	0.500	0.500	0.500	ASTM D734
Hardness	Shore 00	35 - 50	65 - 75	65 - 75	50 - 65	60 - 75	ASTM D2240
Young's Modulus	N/cm^2	64	94.5	70	98.5	77	ASTM D412
Physical Properties							
Operating temperature	°C	-40 to +180	-40 to +180	-60 to +200	-40 to +180	-60 to +180	Kerafol
Density	g/cm^3	1.95	1.32	1.33	1.18	1.28	Kerafol
Flame rating	UL 94	VO	VO	VO	VO	VO	U.L. E140693
Total Mass Loss (TML)	Ma.-%	<0.35	<0.40	<0.24	<0.35	<0.40	ASTM E 595
Thickness available	mm	0.5 - 4.0	0.5 - 4.0	0.5 - 2.0	0.5 - 4.0	1.0 - 1.5	Kerafol

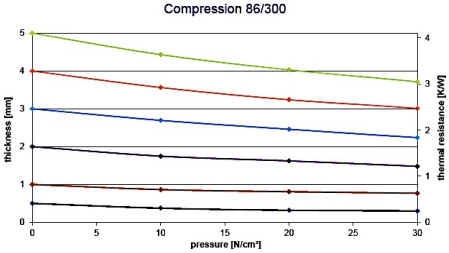
* Data provided are nominal values that should not be used to write specifications. Users are advised to test and decide the suitability of the product to fit their applications.

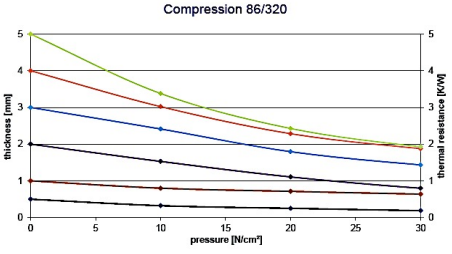


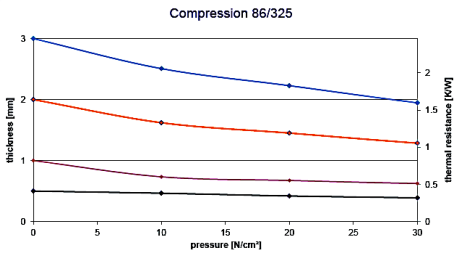


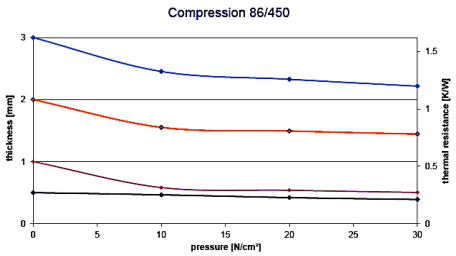


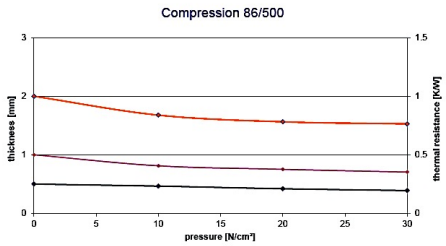


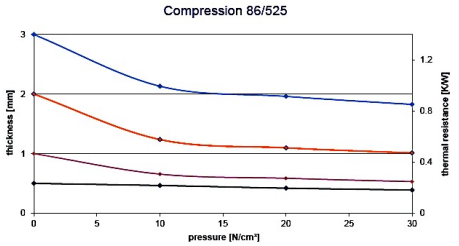


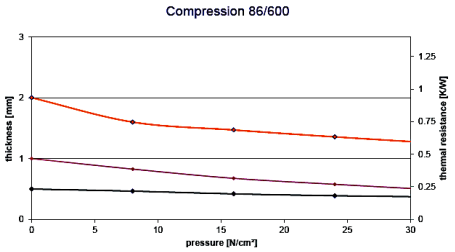












Reinforced Compressible Thermally Conductive Silicone Pad

Properties	Unit	86/128	86/200	86/228	86/238	Test Method
Colour	-	Orange	Pink/yellow	Yellow	Yellow	Visual
Reinforcement	-	86/52	86/52	86/52	86/52	Visual
Thermal Properties						
Thermal resistance R_{th}	K/W	0.8	1.2	0.6	0.6	Kerafol
Thermal impedance R_{ti}	°Cmm²/W	322	480	240	240	Kerafol
	Kin²/W	0.5	0.75	0.37	0.37	Kerafol
Thermal conductivityλ	W/m-K	1.5	1.0	2.0	3.0	ASTM D5470
Electrical Properties						
Breakdown voltage $U_{d;ac}$	kV	6	8	6	6	ASTM D149
Dielectric breakdown $E_{d;ac}$	kV/mm	12	16	12	12	ASTM D149
Volume resistivity	Ωm	61.3 x 10^{9}	1.0 x 10^{11}	2.2 x 10^{11}	176.1 x 10^{9}	ASTM D257-3
Dielectric loss factor tan σ	1	153 x 10^{-3}	1.5 x 10^{-3}	1.0 x 10^{-3}	20.2 x 10^{-3}	ASTM D150
Dielectric constant ε_r	1	4.28	3.9	3.6	3.7	ASTM D150
Mechanical Properties						
Measured thickness (+/-10%)	mm	0.500	0.500	0.500	0.500	ASTM D734
Hardness	Shore 00	10 - 25	10 - 20	30 - 45	25 - 40	ASTM D2240
Young's Modulus	N/cm²	23.6	22	58	32	ASTM D412
Physical Properties						
Operating temperature	°C	-40 to +180	-60 to +200	-40 to +180	-40 to +180	Kerafol
Density	g/cm³	2.0	1.61	1.65	1.65	Kerafol
Flame rating	UL 94	VO	VO	VO	VO	U.L. E140693
Total Mass Loss (TML)	Ma.-%	<0.29	<0.40	<0.44	<0.10	ASTM E 595
Thickness available	mm	0.5 - 4.0	0.5 - 5.0	0.5 - 4.0	0.5 - 2.0	Kerafol

* Data provided are nominal values that should not be used to write specifications. Users are advised to test and decide the suitability of the product to fit their applications.

For Technical Service Support and Supplies : Contact Our Key Asia Distributor and Converter:
Everjoy Industrial Supplies Pte. Ltd.
38 Woodlands Industrial Park E1, #04-11 Singapore 757700
Tel.: +65 6748 3093Fax: +65 6748 7202 Email: salesmgnt@everjoy.com.sg