

Keratherm[®] - Softtherm[®] silicone free U 105, U 200

Flexible ceramic thermal conductive and isolating films. Softtherm[®] U 105 and U 200 are especially designed for silicone sensitive applications and are an alternative material to the silicone based Softtherm[®] films. The silicone free Softtherm[®] films have an excellent electrical isolation and a very good thermal conductivity.

Properties	Unit	U 105	U 200
Colour		brown	brown
Thermal properties			
Thermal resistance (Thickness 0,5 mm)	K/W	0.96	0.60
Thermal impedance	°Cmm ² /W	351	218
	Kin ² /W	0.53	0.38
Thermal conductivity	W/mK	1.3	2.0
Electrical properties			
Breakdown voltage U _{d, ac}	kV	8.0	7.0
Dielectric breakdown E _{d, ac}	kV/mm	16	14
Volume resistivity	Ωm	1.7 x 10 ¹⁰	5.1 x 10 ⁹
Dielectric loss factor tan δ	1	1.3 x 10 ⁻²	3.6 x 10 ⁻²
Dielectric constant ε _r	1	4.6	8.1
Mechanical properties			
Measured thickness (+/-10%)	mm	0.5	0.5
Hardness	Shore A	60 - 70	55 - 70
Youngs Modulus*	N/cm ²	98	197
Physical properties			
Density	g/cm ³	2.07	2.10
Application temperature	°C	-40 to +110	-40 to +130
TML	Ma. %	< 0.55	< 0.80
Flame rating	UL	-	94V-0***
Available thicknesses**	mm	0.5 – 5.0	0.5 - 4.0

*Youngs modulus sample size 30mmx30mmx2.5mm; variable contact pressure; compression 50% of the measured thickness

***Kerafol test according to UL



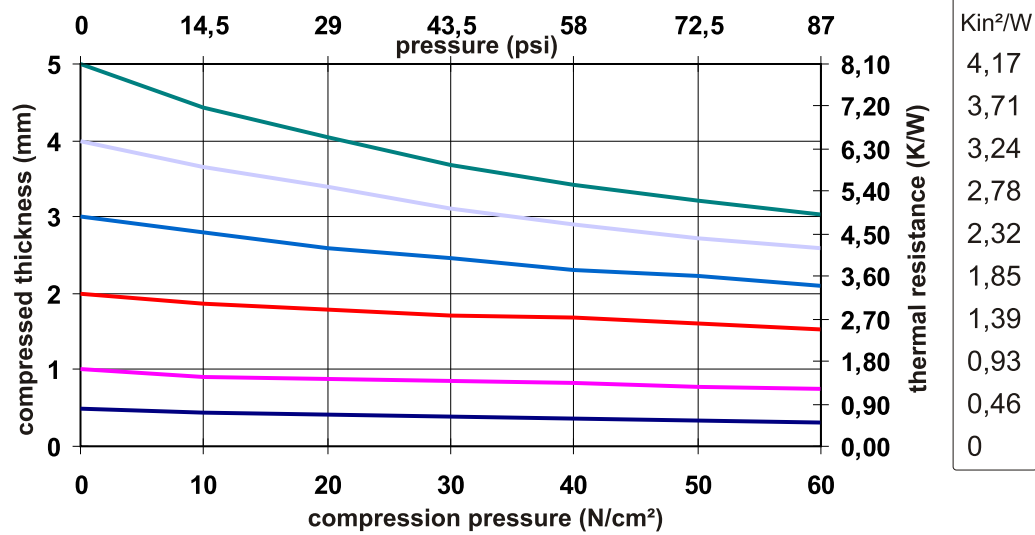
Applications:

- RD-RAM memory modules
- Heat Pipe thermal solutions
- Automotive engines
- Control units
- Plasma supply console

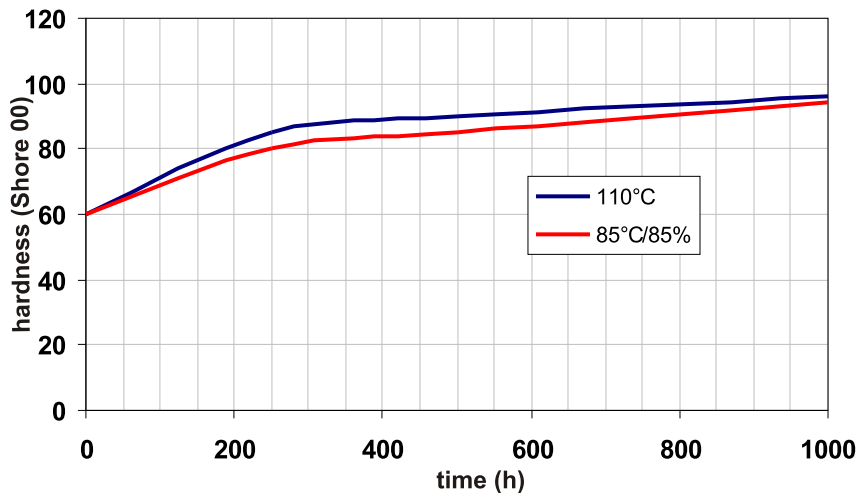
Advantages:

- good compressibility
- silicone free
- high isolation

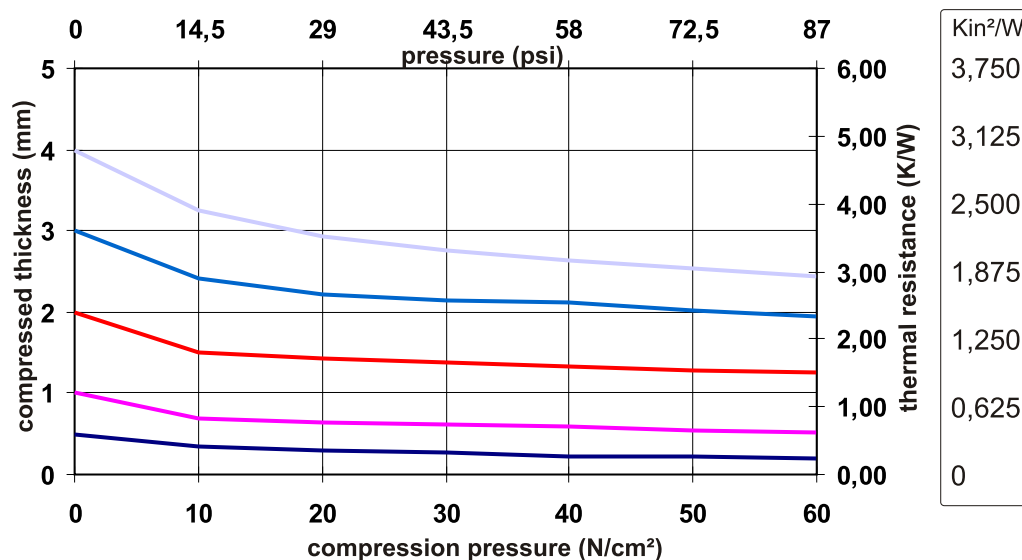
Compressibilities of U 105 silicone free



Aging behaviour U 105



Compressibilities Softtherm® U 200 silicone free



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 therewith. 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' rights and, if necessary, clarifying the position. Sellers' and manufacturer's 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. Last update: 06/2011