

Datasheet

# Keratherm<sup>®</sup> - silicone free Standard films

NEW

**Applications:**

- Medical application
- Laser equipment
- Space units
- Lighting systems
- Aero units
- CD-Rom drives



Properties	Unit	U 23	U 80	U 90
Colour		white	light blue	blue
<b>Thermal properties</b>				
Thermal resistance R <sub>th</sub>	K/W	0.52	0.20	0.09
Thermal impedance R <sub>ti</sub>	°Cmm <sup>2</sup> /W	208	73	32.9
	Kin <sup>2</sup> /W	0.32	0.11	0.05
Thermal conductivity	W/mK	1.2	1.8	6.0
<b>Electrical properties</b>				
Breakdown voltage U <sub>d; ac</sub>	kV	9.0	4.0	4.0
Volume resistivity	cm	4.9 x 10 <sup>11</sup>	1.44 x 10 <sup>14</sup>	being tested
Dielectric loss factor tan	1	8.0 x 10 <sup>-2</sup>	13.0 x 10 <sup>-3</sup>	being tested
Dielectric constant ε <sub>r</sub>	1	1.7	3.2	being tested
<b>Mechanical properties</b>				
Overall thickness (+/-10%)	mm	0.225	0.150	0.200
Hardness	Shore A	85	85	70
Tensile strength	N/mm <sup>2</sup>	5.0	3.0	2.5
Elongation	%	250	130	150
<b>Physical properties</b>				
Density	g/cm <sup>3</sup>	2.32	2.90	1.73
Application temperature	°C	-40 to +90	-40 to +125	-40 to +125

optional with adhesive coating

In case of concerns about using silicones, we offer you a ceramic-filled polyurethane film as an alternative material. Besides good thermal and outstanding electrical properties, these films are characterized by very good perforation strength. These good physical properties are matched with an excellent price-performance ratio.

The following optional thicknesses are available: 0.125 mm; 0.250 mm; 0.3 mm; 0,4 mm; 0.5 mm;