

Keratherm[®] - silicone-free Standard Films

Applications:

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



**Optional available
with adhesive coating!**

Properties	Unit	U 23	U 80	U 90
Colour		white	blue	light blue
Thermal properties				
Thermal resistance R_{th}	K/W	0.52	0.20	0.09
Thermal impedance R_{ti}	$^{\circ}\text{Cmm}^2/\text{W}$	208	73	32.9
	Kin^2/W	0.32	0.11	0.05
Thermal conductivity λ	W/mK	1.2	1.8	6.0
Electrical properties				
Breakdown voltage $U_{d; ac}$	kV	9.0	4.0	4.0
Dielectric breakdown $E_{d; ac}$	kV/mm	> 30	25	25
Volume resistivity	Ωm	4.9×10^{11}	1.44×10^{14}	2.0×10^{11}
Dielectric loss factor $\tan \delta$	1	8.0×10^{-2}	13.0×10^{-3}	13.7×10^{-3}
Dielectric constant ϵ_r	1	1.7	3.2	3.1
Mechanical properties				
Measured thickness (+/-10%)	mm	0.250	0.150	0.200
Hardness	Shore A	80 - 90	80 - 90	65 - 75
Tensile strength	N/mm ²	5.0	3.0	2.5
Elongation	%	250	130	150
Physical properties				
Application temperature	$^{\circ}\text{C}$	-40 to +90	-40 to +125	
Density	g/cm ³	1.36	2.26	1.46
Flame rating	UL	-	-	-
Possible thickness*	mm	0.125 - 0.5	0.15 - 0.3	0.1 - 0.3

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.

Compressibilities Keratherm[®] - silicone-free U 80, U 90

