

**Standard Films silicone free**

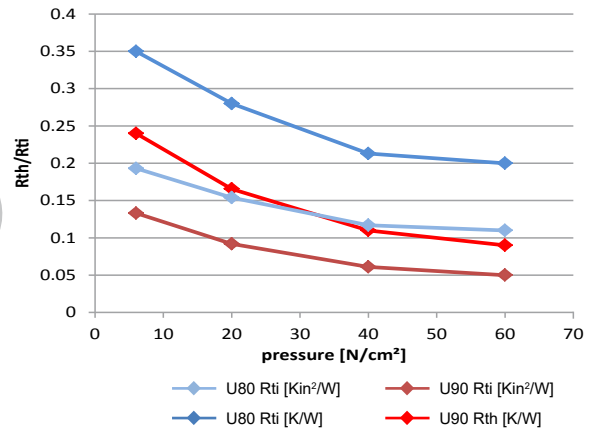
## U 80 & U 90

**KERATHERM® silicone free U-Films**

### Applications

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

Compression U 80 & U 90



Properties	Unit	U 80	U 90
Colour		blue	light blue
<b>Thermal Properties</b>			
Thermal resistance $R_{th}$	K/W	0.2	0.082
Thermal impedance $R_{ti}$	°Cmm²/W	73	33
	Kin²/W	0.11	0.05
Thermal conductivity $\lambda$	W/mK	1.8	6.0
<b>Electrical Properties</b>			
Breakdown voltage $U_{d; ac}$	kV	4.0	4.0
Dielectric breakdown $E_{d; ac}$	kV/mm	25.0	20.0
Volume resistivity	$\Omega m$	$1.4 \times 10^{14}$	$2.0 \times 10^{11}$
Dielectric loss factor $\tan \delta$		$1.3 \times 10^{-2}$	$1.4 \times 10^{-2}$
Dielectric constant $\epsilon_r$		3.2	3.1
<b>Mechanical Properties</b>			
Measured thickness (+/-10%)	mm	0.150	0.200
Hardness	Shore A	80 - 90	70 - 85
Tensile strength	N/mm²	3.0	2.0
Elongation	%	130	150
<b>Physical Properties</b>			
Application temperature	°C	-40 to +125	-40 to +125
Density	g/cm³	2.26	1.46
Flame rating	UL-94	V-0	V-0
Possible thickness	mm	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.

✓ Optional available with adhesive coating as **U 80K / U 90K**

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Data for engineer guidance only.  
Observed performance varies in application.  
Engineers are reminded to test the material in application.

**NOTE:**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. KERAFOL® is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. All specifications are subject to change without notice. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded. In case KERAFOL® would be nevertheless held liable, on whatever legal ground, KERAFOL®'s liability will in no event exceed the amount of the concerned delivery. All KERAFOL® products are sold pursuant to the KERAFOL®'s Terms and Conditions of sale and delivery in effect from time to time, a copy of which will be furnished upon request.

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