

## Keratherm Silicone Free: U 23



In case of concerns about using silicones, we offer you a ceramic filled polyurethane film as an alternative material.

### APPLICATIONS

- Medical Applications
- Laser Equipment
- Space Units
- Lighting Systems
- Aero Units
- CD-ROM Drives

DISCLAIMER: Purchaser shall be solely responsible for determining the adequacy of the product for any and all uses which the purchaser shall apply the product, and the application of the product by the purchaser shall not be subject to any implied warranty of fitness for that purpose.

| Properties                       | symbol        | unit   | U 23                 |
|----------------------------------|---------------|--|----------------------|
| Color                            |               |  | white                |
| <b>Thermal Properties</b>        |               |  |                      |
| Thermal Resistance               | $R_{th}$      | K/W  | 0.52                 |
| Thermal Impedance                | $R_{ti}$      | $^{\circ}\text{Cmm}^2/\text{W}$<br>$\text{Kin}^2/\text{W}$ | 208<br>0.32          |
| Thermal Conductivity             | $\lambda$     | W/mK   | 1.2                  |
| <b>Electrical Properties</b>     |               |  |                      |
| Breakdown Voltage                | $U_{d;ac}$    | kV   | 9.0                  |
| Dielectric Breakdown             | $E_{d;ac}$    | kV/mm  | > 30                 |
| Volume Resistivity               |               | $\Omega\text{cm}$  | $4.9 \times 10^{11}$ |
| Dielectric Loss Factor           | $\tan \delta$ | 1  | $8.0 \times 10^{-2}$ |
| Dielectric Constant              | $\epsilon_r$  | 1  | 1.7                  |
| <b>Mechanical Properties</b>     |               |  |                      |
| Overall Thickness ( $\pm 10\%$ ) |               | mm   | 0.250                |
| Hardness                         |               | Shore A  | 80 – 90              |
| Tensile Strength                 |               | N/mm <sup>2</sup>  | 5.0                  |
| Elongation                       |               | %  | 250                  |
| <b>Physical Properties</b>       |               |  |                      |
| Application Temperature          |               | $^{\circ}\text{C}$   | -40 to +90           |
| Density                          |               | g/cm <sup>3</sup>  | 2.32                 |
| Possible Thickness               |               | mm   | 0.125 – 0.3          |

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!***