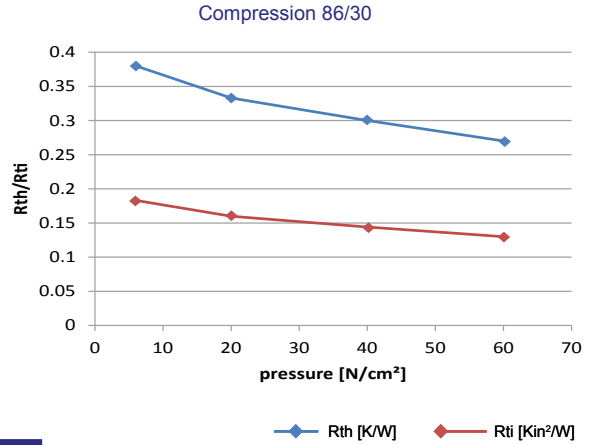


86/30

KERATHERM® white

Applications

- ◆ Power supplies
- ◆ Audio and video components
- ◆ White goods
- ◆ Power converters (AC-DC, DC-DC)
- ◆ Engine controllers



| Properties | Unit | 86/30 |
|--------------------------------------|---------------------------------|----------------------|
| Colour | | white |
| Thermal Properties | | |
| Thermal resistance R_{th} | K/W | 0.22 |
| Thermal impedance R_{ti} | $^{\circ}\text{Cmm}^2/\text{W}$ | 90 |
| | Kin^2/W | 0.13 |
| Thermal conductivity λ | W/mK | 2.5 |
| Electrical Properties | | |
| Breakdown voltage $U_{d; ac}$ | kV | 1.5 |
| Dielectric breakdown $E_{d; ac}$ | kV/mm | 7.0 |
| Volume resistivity | Ωm | 2.5×10^{11} |
| Dielectric loss factor $\tan \delta$ | | 2.2×10^{-2} |
| Dielectric constant ϵ_r | | 3.0 |
| Mechanical Properties | | |
| Measured thickness (+/-10%) | mm | 0.225 |
| Hardness | Shore A | 70 - 80 |
| Tensile strength | N/mm ² | 1.5 |
| Elongation | % | 31 |
| Physical Properties | | |
| Application temperature | $^{\circ}\text{C}$ | -60 to +250 |
| Density | g/cm ³ | 2.33 |
| Flame rating | UL-94 | V-0 |
| Possible thickness | mm | 0.125 - 0.5 |

The highly thermal conductive white films, with its well-balanced thermal, electrical and dielectric behavior and very good self-adhesion characteristics, is created by filling a silicone elastomer base with aluminum oxide. An increase in mechanical strength can be achieved through fibreglass reinforcement. These film types can optionally be supplied with an additional adhesive coating.

Options

| Type | Film structure | Overall thickness | Tensile strength | Breakdown voltage $U_{d; ac}$ | Thermal resistance |
|-------|----------------------------------|-------------------|-------------------|-------------------------------|--------------------|
| | | mm | N/mm ² | kV | K/W |
| 86/10 | with fibreglass | 0.225 | 7.5 | 1.5 | 0.250 |
| 86/20 | with fibreglass and adh. coating | 0.250 | 7.5 | 1.5 | 0.300 |
| 86/40 | with adh. coating | 0.250 | 1.5 | 1.5 | 0.265 |

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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