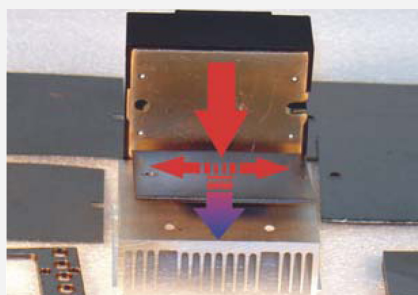


## Keratherm Graphite: S 900



High density graphite with a very high thermal conductivity, as a cost-effective alternative to conventional heat spreaders. Up to 1/3 weight savings compared to conventionally used materials made from copper or aluminum. No electrical insulation!

### APPLICATIONS

- Heat Distribution to Cooling Surfaces
- Chipsets
- Memory Chips
- Micro BGA's

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   | S 900           |
|----------------------------------|------------|--|-----------------|
| Color                            |            |  | black           |
| <b>Thermal Properties</b>        |            |  |                 |
| Thermal Resistance (@0.3mm)      | $R_{th}$   | K/W  | 0.080           |
| Thermal Impedance                | $R_{ti}$   | $^{\circ}\text{Cmm}^2/\text{W}$<br>$\text{Kin}^2/\text{W}$ | 34<br>0.047     |
| Thermal Conductivity z(x-y)      | $\lambda$  | W/mK   | 7.5 (>450)      |
| <b>Electrical Properties</b>     |            |  |                 |
| Electrical Resistance z(x-y)     |            | $\Omega\mu\text{m}$  | 6 – 9 (700-800) |
| Breakdown Voltage                | $U_{d;ac}$ | kV   | conductive      |
| <b>Mechanical Properties</b>     |            |  |                 |
| Mesured Thickness ( $\pm 10\%$ ) |            | mm   | 0.29            |
| Hardness                         |            | Shore D  | 25 - 35         |
| <b>Physical Properties</b>       |            |  |                 |
| Application Temperature          |            | $^{\circ}\text{C}$   | -40 to +500     |
| Density                          |            | $\text{g}/\text{cm}^3$                                     | > 1.6           |
| Flame Rating                     |            | UL   | 94V-0           |
| TML                              |            | Ma.%   | 0.01            |

\* thicknesses available: 0.15mm – 0.29mm

Keratherm® - Graphite S 900 is a high density natural graphite without binding material which is rolled or pressed into films or plates. S 900 has exceptional qualities and is therefore used particularly as a cost effective alternative to conventional interface material. Especially the anisotropy of the thermal properties, coupled with a possible weight saving of up to 30% compared to conventional materials made of copper or aluminum, makes the S 900 interesting for heat spreader applications. In addition, applications in vacuum or even at high temperatures (500°C) are possible.

Graphite S 900 has no electrical insulation and can be customized and applied with an adhesive coating.