

THERMAL CONDUCTIVITY  
(W/m·°K)

1,9

Electrically insulating



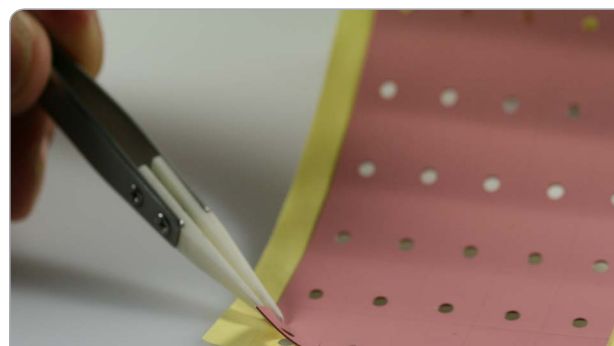
The Heatmanagement  
Company

## High-performance thermally conductive thermo-silicone KU-CG

HEATPAD® KU-CG is a fiberglass reinforced silicone foil filled with thermally conductive ceramics, hence its high thermal conductivity. By implementing it, a very low total thermal resistance can be achieved. Its performance range and flexibility make it the ideal interface material for most applications.

### PROPERTIES

- High thermal conductivity
- Very low total thermal transfer resistance
- Fiberglass reinforced for mechanical stability
- Very flexible
- Quick and clean handling, superior process reliability
- No thermal paste required
- UL flammability rating: UL 94 V0 (FileNo: E337894)



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We disclaim all liability for accuracy of this information. Technical detail is subject to change.

Image may differ from the original product

<sup>1</sup> Voltage ramp 1000 V/s

<sup>2</sup> Step-by-step voltage increments until dielectric breakdown

<sup>3</sup> Increase of thermal resistance through adhesive by about 0,1 °C/W

| PART                                           | KU-    | CG20                                         | CG30                      | CG45                           | CG80                      |
|------------------------------------------------|--------|----------------------------------------------|---------------------------|--------------------------------|---------------------------|
| GENERAL PROPERTIES                             |        |                                              |                           |                                |                           |
| Material                                       |        | Fiberglass reinforced silicone               |                           |                                |                           |
| Filler                                         |        | Thermally conductive ceramic (Boron Nitride) |                           |                                |                           |
| Colour                                         |        | Salmon                                       |                           |                                |                           |
| Gauge                                          | mm     | 0,2 <sup>-0,05 to +0,05</sup>                | 0,3 <sup>-0 to +0,1</sup> | 0,45 <sup>-0,05 to +0,05</sup> | 0,8 <sup>-0 to +0,1</sup> |
| Density                                        | g/cm³  | 2,5                                          | 2,5                       | 2,5                            | 2,5                       |
| Outgassing (LMW Siloxane)                      | ppm    | Σ D3 - D10 = <10                             |                           |                                |                           |
| MECHANICAL PROPERTIES                          |        |                                              |                           |                                |                           |
| Tensile strength                               | Mpa    | 25,9                                         | 24,1                      | 20,4                           | 9,3                       |
| Tear strength                                  | kN/m   | 70                                           | 69                        | 68                             | 24                        |
| Hardness (Shore A)                             |        | 92                                           | 92                        | 92                             | 92                        |
| ELECTRICAL PROPERTIES                          |        |                                              |                           |                                |                           |
| Breakdown Voltage (Voltage ramp) <sup>1</sup>  | V (AC) | 5000                                         | 7000                      | 10000                          | 19999                     |
| Breakdown Voltage (Voltage steps) <sup>2</sup> | V (AC) | 2000                                         | 3000                      | 5000                           | 10000                     |
| Dielectric Constant (1 kHz )                   |        | 3,8                                          | 4,2                       | 4,3                            | 4,3                       |
| Volume Resistivity                             | Ωm     | 1,8 x 10 <sup>12</sup>                       | 1,8 x 10 <sup>12</sup>    | 1,2 x 10 <sup>12</sup>         | 1,0 x 10 <sup>12</sup>    |
| THERMAL PROPERTIES                             |        |                                              |                           |                                |                           |
| Thermal conductivity                           | W/mK   | 1,9                                          | 1,9                       | 1,9                            | 1,9                       |
| Thermal resistance <sup>3</sup> (inch²)        | °C/W   | 0,30                                         | 0,45                      | 0,65                           | 1,05                      |
| Operating temperature                          | °C     | -60 to +200                                  | -60 to +200               | -60 to +200                    | -60 to +200               |

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