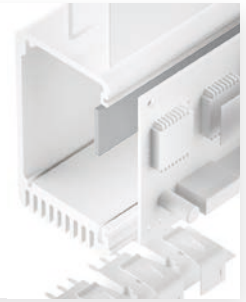


# SILICONE GAP FILLER PAD TGF-U-SI

soft, flexible

TGF-U-SI is an electrically insulating thermally conductive high performance silicone gap filler. It is ideal for use in applications where a very good thermal transfer over large gaps caused e.g. by big tolerances or different stack up heights must be achieved. Due to the specific formulation and filling with ceramic particles the silicone elastomer has an extremely high thermal conductivity. Through its softness and flexibility the material perfectly mates to irregular surfaces thus filling gaps at low pressure. By its use the total thermal resistance is minimised. The natural tackiness of the material allows for an easy and reliable pre-assembly.



## PROPERTIES

- ☐ Soft and compliant
- ☐ Thermal conductivity: 4.5 W/mK
- ☐ Operates at low pressure
- ☐ Extraordinary chemical resistance and longterm stability
- ☐ Shock absorbing
- ☐ Easy mounting through self tackiness

## AVAILABILITY

- ☐ Sheet 300 x 400 mm
- ☐ Tacky on both sides (TGF-UXXXX-SI)
- ☐ Die cut parts
- ☐ Kiss cut parts on sheet

## APPLICATION EXAMPLES

Thermal link of:

- ☐ SMD packages
  - ☐ Through-hole vias
  - ☐ RDRAMs Smemory modules
  - ☐ Flip Chips, DSPs, BGAs, PPGAs
- For use in Automotive applications / Laptops / Medicine engineering / Embedded boards

| PROPERTY                                     | UNIT                         | TGF-U0500-SI                    | TGF-U1000-SI                    | TGF-U2000-SI                    | TGF-U3000-SI                    | TGF-U5000-SI                    |
|----------------------------------------------|------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| <b>MATERIAL</b>                              |                              |                                 |                                 |                                 |                                 |                                 |
| Colour                                       |                              | Ceramic filled silicone<br>Grey | Ceramic filled silicone<br>Grey | Ceramic filled silicone<br>Grey | Ceramic filled silicone<br>Grey | Ceramic filled silicone<br>Grey |
| Thickness                                    | mm                           | 0.5 ±0.10                       | 1.0 ±0.15                       | 2.0 ±0.20                       | 3.0 ±0.25                       | 5.0 ±0.30                       |
| Hardness                                     | Shore 00                     | 60                              | 60                              | 60                              | 60                              | 60                              |
| UL Flammability                              | UL 94                        | V0                              | V0                              | V0                              | V0                              | V0                              |
| RoHS Conformity                              | 2015 / 863 / EU              | Yes                             | Yes                             | Yes                             | Yes                             | Yes                             |
| <b>THERMAL</b>                               |                              |                                 |                                 |                                 |                                 |                                 |
| Resistance <sup>1</sup> @ 60 PSI @ Thickness | °C-inch <sup>2</sup> /W (mm) | 0.15 (0.35)                     | 0.27 (0.65)                     | 0.42 (1.03)                     | 0.57 (1.40)                     | 0.84 (1.75)                     |
| Resistance <sup>1</sup> @ 30 PSI @ Thickness | °C-inch <sup>2</sup> /W (mm) | 0.17 (0.40)                     | 0.32 (0.81)                     | 0.55 (1.40)                     | 0.78 (1.98)                     | 1.20 (2.75)                     |
| Resistance <sup>1</sup> @ 10 PSI @ Thickness | °C-inch <sup>2</sup> /W (mm) | 0.22 (0.45)                     | 0.36 (0.91)                     | 0.68 (1.77)                     | 0.99 (2.63)                     | 1.62 (3.95)                     |
| Thermal Conductivity <sup>1</sup>            | W/mK                         | 4.5                             | 4.5                             | 4.5                             | 4.5                             | 4.5                             |
| Operating Temperature Range                  | °C                           | - 40 to + 180                   | - 40 to + 180                   | - 40 to + 180                   | - 40 to + 180                   | - 40 to + 180                   |
| <b>ELECTRICALLY</b>                          |                              |                                 |                                 |                                 |                                 |                                 |
| Dielectric Strength                          | kV / mm                      | 15                              | 15                              | 15                              | 15                              | 15                              |

Measurement technique according to: 'ASTM D 5470. Typical, non-binding values. Not intended for specification purposes. Subject to technical changes. Please contact us for further information.

Thicknesses: 0.5 mm / 1.0 mm / 1.5 mm / 2.0 mm / 2.5 mm / 3.0 mm / 4.0 mm / 5.0 mm

mm vs. N/cm<sup>2</sup> (PSI) / Rth vs. N/cm<sup>2</sup> (PSI)

