

SILICONE GAP FILLER TGF-R-SI

soft, flexible

TGF-R-SI is an electrically insulating thermally conductive silicone gap filler. It is ideal for use in applications where 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 a very high thermal conductivity. Through its high 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.



Release 04 / 2014

PROPERTIES

- Soft and compliant
- Thermal conductivity: 3.0 W/mK
- Operates at low pressure
- Extraordinary chemical resistance and longterm stability
- Residue-free removal after use
- Shock absorbing
- Easy mounting through self tackiness
- One or two-side self-tacky

AVAILABILITY

- Sheet 480 x 460 mm (Thickness 0.5/1.0 mm)
- Sheet 460 x 460 mm (Thickness 2.0 mm)
- Sheet 450 x 460 mm (Thickness 3.0/4.0 mm)
- Sheet 450 x 450 mm (Thickness 5.0 mm)
- Tacky on both sides (TGF-RXXXX-SI)
- Tacky on one side (TGF-RXXXX-SI-A1)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

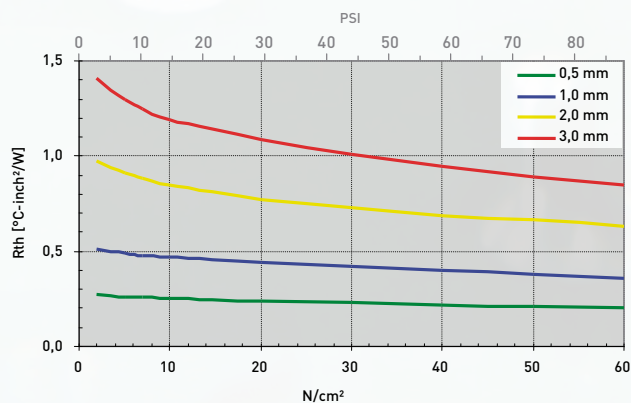
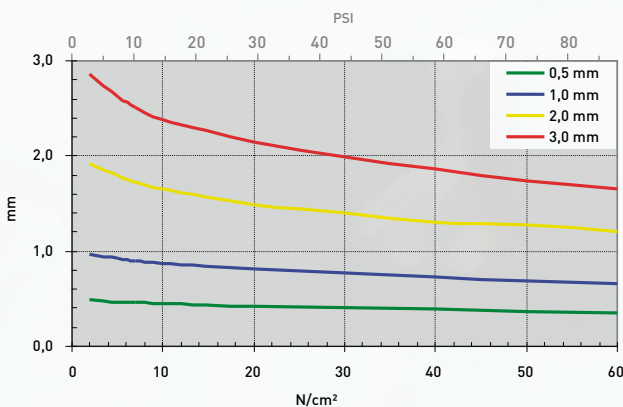
- Thermal link of:
- SMD packages
 - Through-hole vias
 - Capacitors
 - Electronic parts to heat pipes
- For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs

| Property | Unit | TGF-R0500-SI | TGF-R1000-SI | TGF-R2000-SI | TGF-R3000-SI |
|--|------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Material | | Ceramic filled silicone | Ceramic filled silicone | Ceramic filled silicone | Ceramic filled silicone |
| Colour | | Light blue | Light blue | Light blue | Light blue |
| Thickness | mm | 0.5 | 1.0 | 2.0 | 3.0 |
| Hardness | Shore 00 | 55 | 55 | 55 | 55 |
| UL Flammability | UL 94 | V0 | V0 | V0 | V0 |
| RoHS Conformity | 2002/95/EC | Yes | Yes | Yes | Yes |
| Thermal | | | | | |
| Resistance ¹ @ 60 PSI @ Thickness | °C-inch ² /W (mm) | 0.22 (0.39) | 0.40 (0.73) | 0.68 (1.31) | 0.95 (1.86) |
| Resistance ¹ @ 30 PSI @ Thickness | °C-inch ² /W (mm) | 0.24 (0.42) | 0.44 (0.81) | 0.77 (1.49) | 1.09 (2.15) |
| Resistance ¹ @ 10 PSI @ Thickness | °C-inch ² /W (mm) | 0.26 (0.46) | 0.48 (0.90) | 0.88 (1.72) | 1.25 (2.50) |
| Thermal Conductivity | W/mK | 3.0 | 3.0 | 3.0 | 3.0 |
| Operating Temperature Range | °C | - 60 to + 180 | - 60 to + 180 | - 60 to + 180 | - 60 to + 180 |
| Electrically | | | | | |
| Dielectric Strength | kV / mm | 10 | 10 | 10 | 10 |
| Volume Resistivity | Ohm - cm | 1.0 x 10 ¹¹ | 1.0 x 10 ¹¹ | 1.0 x 10 ¹¹ | 1.0 x 10 ¹¹ |
| Dielectric Constant | @ 1 kHz | 5.2 | 5.2 | 5.2 | 5.2 |

Test Methods: ¹ASTM D 5470. All data without warranty and subject to change. Please contact us for further data and 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/cm² (PSI) / Rth vs. N/cm² (PSI)



All technical data and information are without warranty and believed to be reliable and accurate. Since the products are not provided to conform with mutually agreed specifications and their use and processing are unknown we cannot guarantee results, freedom from patent infringement, or their suitability for any application. Product testing by the applicant is recommended. We reserve the right of changes.