

SILICONE-FREE GAP FILLER PAD TGF-R-NS HALA

siloxane-free, soft acrylate

TGF-R-NS is an electrically insulating highly thermally conductive silicone-free 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. The acrylate based elastomer does not contain any volatile siloxanes which are inevitably emitted by silicones. Due to the specific formulation and filling with ceramic particles the material has a high thermal conductivity. Through its softness the material perfectly mates to irregular surfaces thus filling gaps and operates 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 02 / 2021

PROPERTIES

- Silicone-free acrylate
- No emission of volatile siloxanes
- Soft and compliant
- Thermal conductivity: 3.0 W/mK
- Shock absorbing
- Easy mounting through self-tackiness

AVAILABILITY

- Sheet 400 x 200 mm
- Double-side tacky (TGF-RXXX-NS)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

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

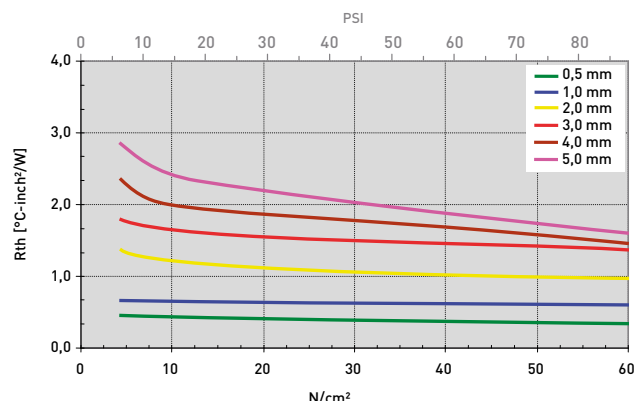
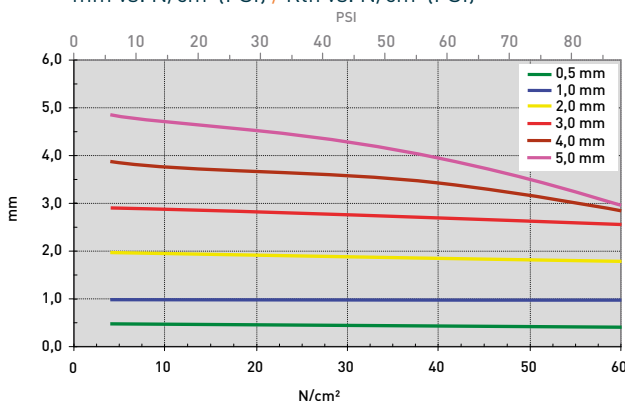
Technical Data Sheet

| PROPERTY | UNIT | TGF-R0500-NS | TGF-R1000-NS | TGF-R2000-NS | TGF-R3000-NS | TGF-R5000-NS |
|--|------------------------------|--|--|--|--|--|
| MATERIAL | | | | | | |
| | | Ceramic filled silicone-free acrylic elastomer | Ceramic filled silicone-free acrylic elastomer | Ceramic filled silicone-free acrylic elastomer | Ceramic filled silicone-free acrylic elastomer | Ceramic filled silicone-free acrylic elastomer |
| Colour | | Light Grey | Light Grey | Light Grey | Light Grey | Light Grey |
| Specific Gravity | g/cm ³ | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| Thickness | mm | 0.5 ±0.05 | 1.0 ±0.10 | 2.0 ±0.20 | 3.0 ±0.30 | 5.0 ±0.50 |
| Hardness | Shore 00 | 75 | 75 | 75 | 75 | 75 |
| Flammability (Equivalent) | UL 94 | V0 | V0 | V0 | V0 | V0 |
| RoHS Conformity | 2015 / 863 / EU | Yes | Yes | Yes | Yes | Yes |
| THERMAL | | | | | | |
| Resistance ¹ @ 60 PSI @ Thickness | °C-inch ² /W (mm) | 0.38 [0.44] | 0.63 [0.97] | 1.03 [1.85] | 1.47 [2.71] | 1.87 [3.96] |
| Resistance ¹ @ 30 PSI @ Thickness | °C-inch ² /W (mm) | 0.42 [0.46] | 0.64 [0.98] | 1.12 [1.91] | 1.57 [2.81] | 2.18 [4.53] |
| Resistance ¹ @ 10 PSI @ Thickness | °C-inch ² /W (mm) | 0.45 [0.47] | 0.65 [0.99] | 1.25 [1.96] | 1.72 [2.88] | 2.60 [4.79] |
| Thermal Conductivity ¹ | W/mK | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| Operating Temperature Range | °C | - 40 to +130 | - 40 to +130 | - 40 to +130 | - 40 to +130 | - 40 to +130 |
| ELECTRICAL | | | | | | |
| Dielectric Strength | kV / mm | 7.8 | 7.8 | 7.8 | 7.8 | 7.8 |
| Volume Resistivity | Ohm - cm | 1 x 10 ¹³ | 1 x 10 ¹¹ | 1 x 10 ¹¹ | 1 x 10 ¹¹ | 1 x 10 ¹¹ |

Measurement technique according to: 'ASTM 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 / 2.0 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, corresponding to the latest state of the art. 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.