plastic

TGF-VP-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 tole-rances 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. For an easy and reliable preassembly the interface material can optionally be supplied with an adhesive coating on one side.



Release 04 / 2025

PROPERTIES

- Plastic
- Soft and compliable
- ☐ Thermal conductivity: 5.5 W/mK
- Operates at low pressure
- Extraordinary chemical resistance and longterm stability
- Shock absorbing
- Easy mounting through self tackiness or with an adhesive coating on one side

AVAILABILITY

- ☐ Sheet 200 x 300 mm (TGF-VPXXXX-SI)
- One side adhesive (TGF-VPXXXX-SI-AD1)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

Thermal link of:

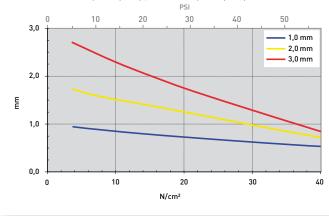
- SMD packages
- Through-hole vias
- □ RDRAMs Smemory modules
- ☐ Flip Chips, DSPs, BGAs, PPGAs For use in Automotive applications / Laptops / Medicine engineering / Embedded boards

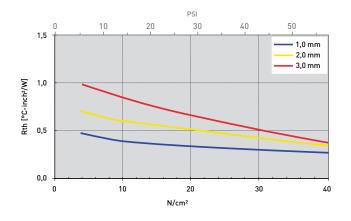
| PROPERTY | UNIT | TGF-VP1000-SI | TGF-VP2000-SI | TGF-VP3000-SI |
|--|-----------------|-------------------------|-------------------------|-------------------------|
| MATERIAL | | Ceramic filled silicone | Ceramic filled silicone | Ceramic filled silicone |
| Colour | | Grey | Grey | Grey |
| Specific Gravity | g/cm³ | 3.1 | 3.1 | 3.1 |
| Thickness | mm | 1.0 ±0.10 | 2.0 ±0.20 | 3.0 ±0.25 |
| Hardness | Shore 00 | 60 | 60 | 60 |
| Shelf Life (unopened, dry storage conditions @ < 40°C) | Months | 12 | 12 | 12 |
| UL Flammability (Equivalent) ¹ | UL 94 | V0 | V0 | V0 |
| RoHS Conformity | 2015 / 863 / EU | Yes | Yes | Yes |
| THERMAL | | | | |
| Resistance ² @ 60 PSI @ Thickness | °C-inch²/W (mm) | 0.26 (0.53) | 0.34 (0.72) | 0.37 (0.84) |
| Resistance ² @ 30 PSI @ Thickness | °C-inch²/W (mm) | 0.33 (0.73) | 0.52 (1.26) | 0.66 (1.75) |
| Resistance ² @ 10 PSI @ Thickness | °C-inch²/W (mm) | 0.43 (0.90) | 0.64 (1.60) | 0.91 (2.50) |
| Thermal Conductivity ² | W/mK | 5.5 | 5.5 | 5.5 |
| Operating Temperature Range | °C | - 50 to + 180 | - 50 to + 180 | - 50 to + 180 |
| ELECTRICALLY | | | | |
| Dielectric Strength | kV / mm | 5 | 5 | 5 |
| Volume Resistivity | 0hm - cm | ≥1.0 x 10 ¹³ | ≥1.0 x 10 ¹³ | ≥1.0 x 10 ¹³ |
| Dielectric Constant | @ 1 MHz | 5.5 | 5.5 | 5.5 |

Measurement technique according to: 'Without adhesive coating, 'ASTM D 5470. All data without warranty and subject to change. Please contact us for further data and information.

Thicknesses: $1.0 \, \text{mm} \, / \, 1.5 \, \text{mm} \, / \, 2.0 \, \text{mm} \, / \, 2.5 \, \text{mm} \, / \, 3.0 \, \text{mm} \, / \, 4.0 \, \text{mm} \, / \, 5.0 \, \text{mm}$

mm vs. N/cm² (PSI) / Rth vs. N/cm² (PSI)





Technical Data Sheet

I 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 freedom from patent infringement, or their suitability for any application. Product testing by the applicant is recommended. We reserve the right of changes. and information are cessing are unknown technical data a