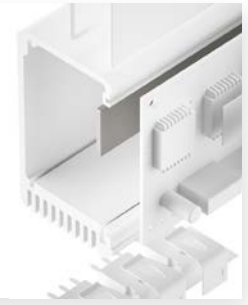


# SILICONE GAP FILLER PAD TGF-USS-SI



very soft, flexible / Low Volatile Siloxanes (LV)

TGF-USS-SI is an electrically insulating thermally conductive high performance LV 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 articles the silicone elastomer has a very high thermal conductivity. Through its ultra softness and flexibility the material perfectly mates to irregular surfaces thus filling gaps at minimum pressure. By its use the total thermal resistance is minimised. The natural tackiness of the material allows for an easy and reliable pre-assembly. The material is one-side tacky through lamination with a thermally conductive film.



Release 02 / 2021

### PROPERTIES

- Ultra soft and compliant
- Low volatile siloxane content (LV)
- No paint wetting impairment
- Thermal conductivity: 3.3 W/mK
- Operates at minimum pressure
- Extraordinary chemical resistance and longterm stability
- Shock absorbing
- Easy mounting through self tackiness
- One-side self-tacky

### AVAILABILITY

- Sheet 210 x 420 mm (0.5 - 3.0 mm)
- Tacky on one side by film laminate (TGF-USSXXX-SI-A1)
- Die cut parts
- Kiss cut parts on sheet

### APPLICATION EXAMPLES

- Thermal link of:
- SMD packages
  - Through-hole vias
  - RDRAMs memory modules
  - Flip Chips, DSPs, BGAs, PPGAs
- For use in Automotive applications / Laptops / Medicine engineering / Embedded boards

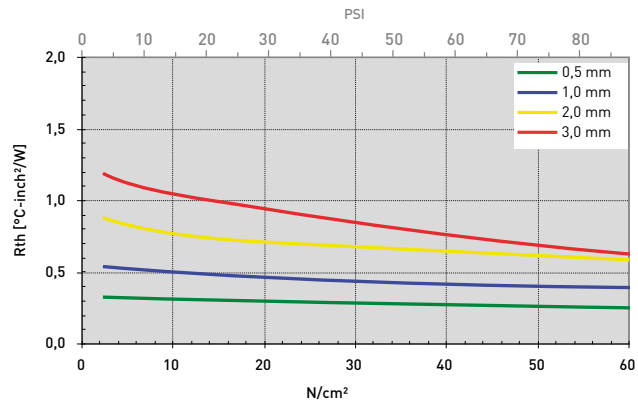
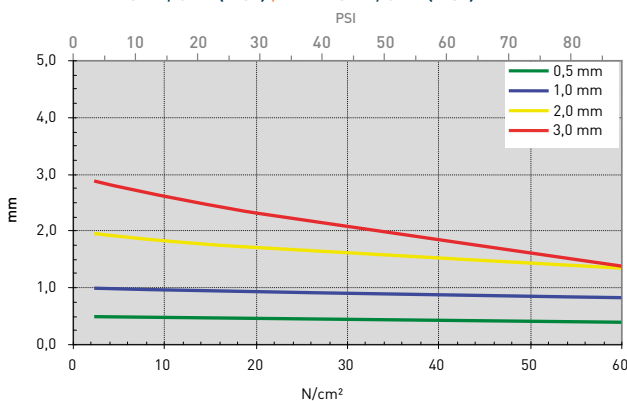
Technical Data Sheet

PROPERTY	UNIT	TGF-USS0500-SI-A1	TGF-USS1000-SI-A1	TGF-USS2000-SI-A1	TGF-USS3000-SI-A1
<b>MATERIAL</b>					
		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Dark grey / Grey	Dark grey / Grey	Dark grey / Grey	Dark grey / Grey
Thickness	mm	0.5 <sup>+0.20</sup> / <sub>-0.10</sub>	1.0 <sup>+0.20</sup> / <sub>-0.10</sub>	2.0 <sup>+0.20</sup>	3.0 <sup>+0.30</sup>
Hardness	Shore 00	45	45	45	45
No Paint Wetting Impairment Substances (PWIS) <sup>1</sup>		Passed	Passed	Passed	Passed
UL Flammability (Equivalent)	UL 94	V0	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes	Yes
<b>THERMAL</b>					
Resistance <sup>2</sup> @ 60 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.26 (0.47)	0.40 (0.87)	0.63 (1.55)	0.75 (1.84)
Resistance <sup>2</sup> @ 30 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.29 (0.48)	0.45 (0.93)	0.70 (1.70)	0.94 (2.30)
Resistance <sup>2</sup> @ 10 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.31 (0.49)	0.51 (0.99)	0.80 (1.85)	1.07 (2.68)
Thermal Conductivity <sup>1</sup>	W/mK	3.3	3.3	3.3	3.3
Operating Temperature Range	°C	- 40 to + 150	- 40 to + 150	- 40 to + 150	- 40 to + 150
<b>ELECTRICAL</b>					
Breakdown Voltage	kV / mm	>10	>10	>10	>10
Volume Resistivity	Ohm - cm	1.0 x 10 <sup>10</sup>	1.0 x 10 <sup>10</sup>	1.0 x 10 <sup>10</sup>	1.0 x 10 <sup>10</sup>

Test Methods: <sup>1</sup>P-VW 3-10.7 57650 Temp. Test, <sup>2</sup>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

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