

# SILICONE GAP FILLER PAD TGF-HUS-SI

extremely soft, flexible



TGF-HUS-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 good thermal conductivity. Through its extreme softness and flexibility the material perfectly mates to irregular surfaces thus filling gaps at very 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

- Extremely soft and compliant
- Thermal conductivity: 1.8 W/mK
- Operates at very low pressure
- Extraordinary chemical resistance and longterm stability
- Shock absorbing
- Easy mounting through self tackiness
- Two-side self-tacky

### AVAILABILITY

- Sheet 300 x 400 mm
- Tacky on both sides (TGF-HUSXXX-SI)
- 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

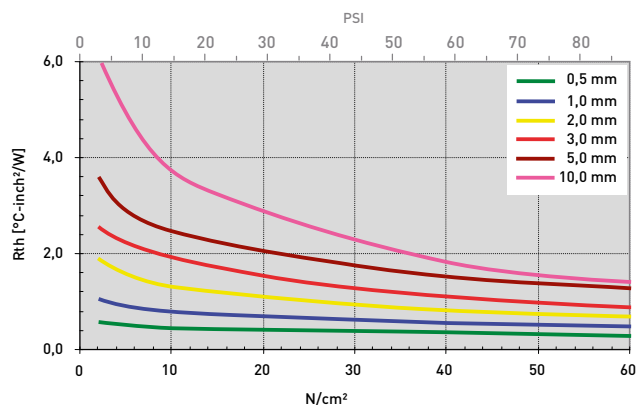
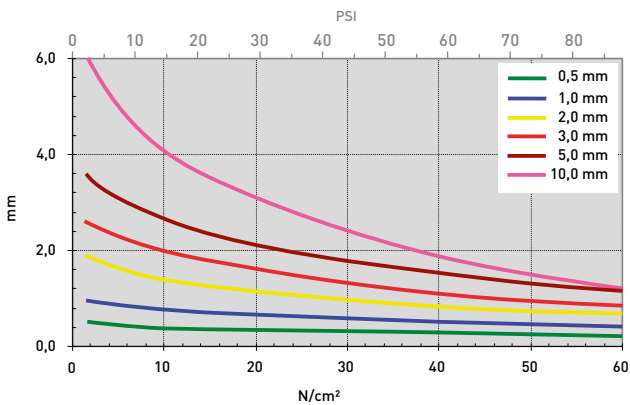
Technical Data Sheet

PROPERTY	UNIT	TGF-HUS0500-SI	TGF-HUS1000-SI	TGF-HUS2000-SI	TGF-HUS3000-SI	TGF-HUS5000-SI
<b>MATERIAL</b>						
MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Dark grey	Dark grey	Dark grey	Dark grey	Dark 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	30	30	30	30	30
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)	0.34 (0.31)	0.56 (0.54)	0.82 (0.85)	1.10 (1.09)	1.52 (1.54)
Resistance <sup>1</sup> @ 30 PSI @ thickness	°C-inch <sup>2</sup> /W (mm)	0.40 (0.36)	0.69 (0.68)	1.12 (1.16)	1.53 (1.63)	2.06 (2.13)
Resistance <sup>1</sup> @ 10 PSI @ thickness	°C-inch <sup>2</sup> /W (mm)	0.50 (0.46)	0.85 (0.85)	1.48 (1.57)	2.10 (2.18)	2.71 (2.92)
Thermal Conductivity <sup>1</sup>	W/mK	1.8	1.8	1.8	1.8	1.8
Operating Temperature Range	°C	- 40 to + 150	- 40 to + 150	- 40 to + 150	- 40 to + 150	- 40 to + 150
<b>ELECTRICALLY</b>						
Dielectric Strength	kV / mm	> 10	> 10	> 10	> 10	> 10
Volume Resistivity	Ohm - cm	8.056 x 10 <sup>12</sup>	8.056 x 10 <sup>12</sup>	8.056 x 10 <sup>12</sup>	8.056 x 10 <sup>12</sup>	8.056 x 10 <sup>12</sup>
Dielectric Constant	5.6	5.6	5.6	5.6	5.6	5.6

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 / 1.5 mm / 2.0 mm / 2.5 mm / 3.0 mm / 4.0 mm / 5.0 mm / 10.0 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.