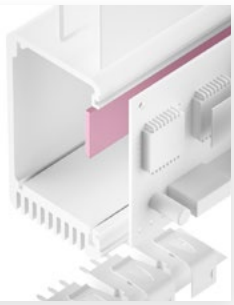
SILICONE GAP FILLER TGF-UP-SI

plastic

TGF-UP-SI is an electrically insulating thermally conductive very 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 tolerances or different stack up heights must be achieved. Due to the specific formulation and filling with ceramic particles the silicone elastomer has an outstandingly high thermal conductivity. Through its softness and plasticity 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 12 / 2025

PROPERTIES

- Plastic
- Soft and compliable
- Thermal conductivity: 4.0 W/mK
- Operates at very low pressure
- Extraordinary chemical resistance and longterm stability
- Two-side self-tacky

AVAILABILITY

- Sheet 400 x 200 mm
- Tacky on both sides (TGF-UPXXXX-SI)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

Thermal link of:

- ASICs, BGAs
- Through-hole vias
- Capacitors
- Electronic parts to heat pipes

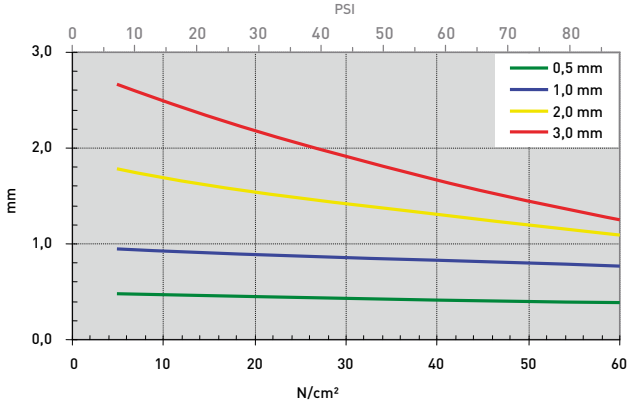
For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs / Network Communication

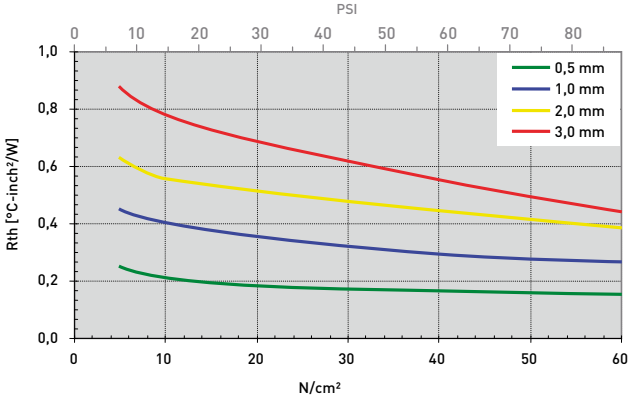
PROPERTY	UNIT	TGF-UP0500-SI	TGF-UP1000-SI	TGF-UP2000-SI	TGF-UP3000-SI
MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Purple	Purple	Purple	Purple
Density	g/cm³	3.1	3.1	3.1	3.1
Thickness	mm	0.5 ±0.10	1.0 ±0.10	2.0 ±0.20	3.0 ±0.30
Hardness	Shore 00	60	60	55	55
Shelf Life (unopened, dry storage conditions @ < 40° C)	Months	12	12	12	12
UL Flammability	UL 94	V0	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes	Yes
THERMAL					
Resistance[1] @ 60 PSI @ Thickness	°C-inch²/W (mm)	0.17 (0.41)	0.29 (0.82)	0.44 (1.31)	0.55 (1.66)
Resistance[1] @ 30 PSI @ Thickness	°C-inch²/W (mm)	0.18 (0.44)	0.36 (0.88)	0.52 (1.54)	0.68 (2.20)
Resistance[1] @ 10 PSI @ Thickness	°C-inch²/W (mm)	0.23 (0.48)	0.43 (0.94)	0.60 (1.75)	0.83 (2.61)
Thermal Conductivity[1]	W/mK	4.0	4.0	4.0	4.0
Operating Temperature Range	°C	- 40 to + 150	- 40 to + 150	- 40 to + 150	- 40 to + 150
ELECTRICALLY					
Dielectric Strength	kV / mm	> 6	> 6	> 6	> 6
Volume Resistivity	Ohm - cm	1.0 x 10^{13}	1.0 x 10^{13}	1.0 x 10^{13}	1.0 x 10^{13}
Dielectric Constant	@ 1 MHz	7.5	7.5	7.5	7.5

Measurement technique according to: [1]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 / 6.0 mm / ... / 10.0 mm

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





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