SILICONE GAP FILLER TGF-V-SI

soft, flexible

TGF-V-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 tolerances 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. The material is double-side self-tacky or alternatively one-side tacky through lamination with a thermally conductive film.

Release 04 / 2014

PROPERTIES

- Soft and compliable
- Thermal conductivity: 5.0 W/mK
- Operates at low pressure
- Extraordinary chemical resistance and long-term stability
- Residue-free removal after use
- Shock absorbing
- One or two-side self-tacky

AVAILABILITY

- Sheet 210 x 420 mm (Thickness 0.5 – 2.0 mm)
- Sheet 200 x 200 mm (Thickness 2.5 – 3.0 mm)
- Tacky on both sides (TGF-VXXXX-SI)
- Tacky on one side by film laminate (TGF-VXXXX-SI-A1)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

Thermal link of:

- SMD packages
- Through-hole vias
- Capacitors
- Electronic parts to heat pipes

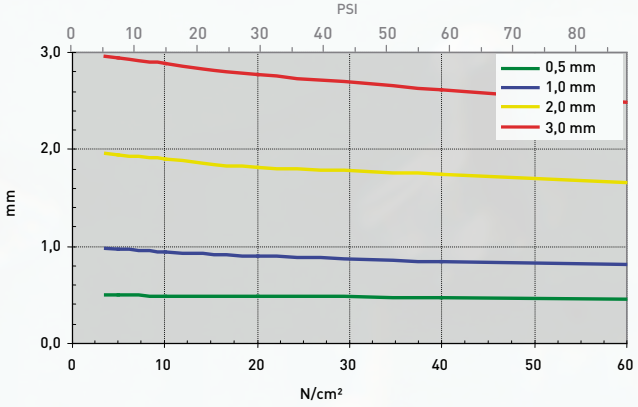
For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs

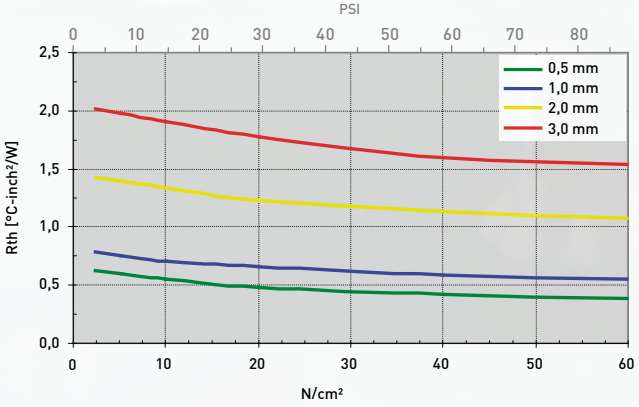
Property	Unit	TGF-V0500-SI	TGF-V1000-SI	TGF-V2000-SI	TGF-V3000-SI
Material		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Grey	Grey	Grey	Grey
Thickness	mm	0.5	1.0	2.0	3.0
Hardness	Shore 00	65	65	65	65
UL Flammability	UL 94	V0	V0	V0	V0
RoHS Conformity	2002/95/EC	Yes	Yes	Yes	Yes
Thermal					
Resistance[1] @ 60 PSI @ Thickness	°C-inch²/W (mm)	0.41 (0.47)	0.58 (0.84)	1.13 (1.74)	1.60 (2.61)
Resistance[1] @ 30 PSI @ Thickness	°C-inch²/W (mm)	0.48 (0.48)	0.65 (0.90)	1.22 (1.82)	1.77 (2.77)
Resistance[1] @ 10 PSI @ Thickness	°C-inch²/W (mm)	0.57 (0.49)	0.73 (0.96)	1.37 (1.93)	1.94 (2.91)
Thermal Conductivity	W/mK	5.0	5.0	5.0	5.0
Operating Temperature Range	°C	- 40 to + 200	- 40 to + 200	- 40 to + 200	- 40 to + 200
Electrically					
Dielectric Strength	kV / mm	>10	>10	>10	>10
Volume Resistivity	Ohm - cm	> 1.0 x 10^{10}	> 1.0 x 10^{10}	> 1.0 x 10^{10}	> 1.0 x 10^{10}

Test Methods: [1]ASTM D 5470. All data without warranty and subject to change. Please contact us for further data and information.

Thicknesses: Double-side tacky 0.7 mm / 1.0 mm / 1.5 mm / 2.0 mm / 3.0 mm
One-side tacky 0.5 mm / 1.0 mm / 1.5 mm / 2.0 mm / 3.0 mm

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





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