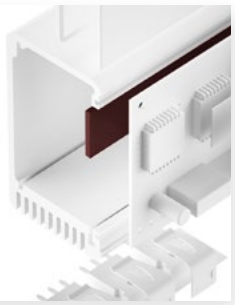
SILICONE GAP FILLER TGF-VUS-SI

very soft, flexible / Low Volatile Siloxanes (LV)

TGF-VUS-SI is an electrically insulating thermally conductive high performance 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 an extremely high thermal conductivity. Through its extraordinary 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. The material is one-side tacky through a thermally conductive film layer.



Release 12 / 2024

Technical Data Sheet

PROPERTIES

- Extraordinary soft and compliable
- Low Volatile Siloxanes (LV) ≤70ppm
- Thermal conductivity: 5.0 W/mK
- Operates at very low pressure
- Extraordinary chemical resistance and longterm stability
- Shock absorbing
- Easy mounting through self tackiness
- One-side self-tacky

AVAILABILITY

- Sheet 400 x 200 mm
- Tacky on one side (TGF-VUSXXXX-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

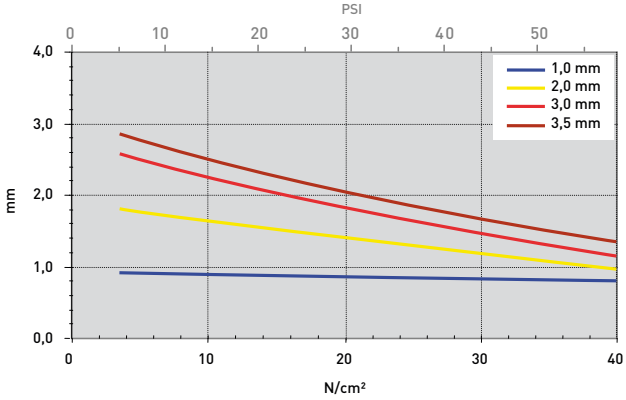
For use in Automotive applications / Laptops / Medicine engineering / Embedded boards

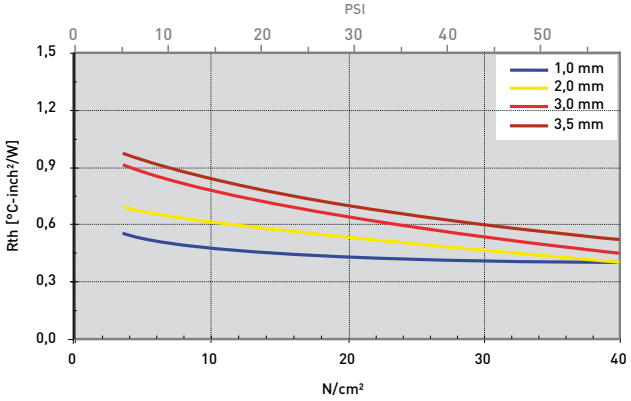
PROPERTY	UNIT	TGF-VUS1000-SI-A1	TGF-VUS2000-SI-A1	TGF-VUS3000-SI-A1
MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Reddish Black	Reddish Black	Reddish Black
Thickness	mm	$1.0^{+0.2}_{-0.1}$	$2.0^{\pm 0.20}$	$3.0^{\pm 0.30}$
Density	g/cm³	3.1	3.1	3.1
Hardness	Shore 00	50	50	50
UL Flammability (Equivalent)	UL 94	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes
THERMAL				
Resistance¹ @ 60 PSI @ Thickness	°C-inch²/W (mm)	0.40 (0.80)	0.39 (0.98)	0.45 (1.15)
Resistance¹ @ 30 PSI @ Thickness	°C-inch²/W (mm)	0.43 (0.86)	0.54 (1.40)	0.64 (1.82)
Resistance¹ @ 10 PSI @ Thickness	°C-inch²/W (mm)	0.52 (0.92)	0.65 (1.71)	0.85 (2.40)
Thermal Conductivity	W/mK	5.0	5.0	5.0
Operating Temperature Range	°C	- 40 to + 150	- 40 to + 150	- 40 to + 150
ELECTRICAL				
Dielectric Strength	kV / mm	>7	>7	>7
Volume Resistivity	Ohm - cm	>1 x 10^{10}	>1 x 10^{10}	>1 x 10^{10}
Dielectric Constant	@ 1 kHz	8.3	8.3	8.3

Measurement technique according to: ¹ASTM D 5470. All data without warranty and subject to change. Please contact us for further data and information.

Thicknesses: 1.0 mm / 1.5 mm / 2.0 mm / 2.5 mm / 3.0 mm / 4.0 mm / 5.0 mm

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





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