SILICONE GAP FILLER PAD TGF-AXS-SI-GF

ultra soft, with fibreglass reinforcement

TGF-AXS-SI-GF 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 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 conductive fibreglass reinforced silicone laminate on one side provides for a high mechanic stability and strength.

Release 04 / 2024

Technical Data Sheet

PROPERTIES

- Ultra soft and compliable
- Thermal conductivity: 1.1 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 200 x 400 mm
- Tacky on one side by fibreglass reinforced laminate (TGF-AXSXXXX-SI-GF)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

Thermal link of:

- SMD packages
- Through-hole vias
- Capacitors
- Battery cells
- Induction coils

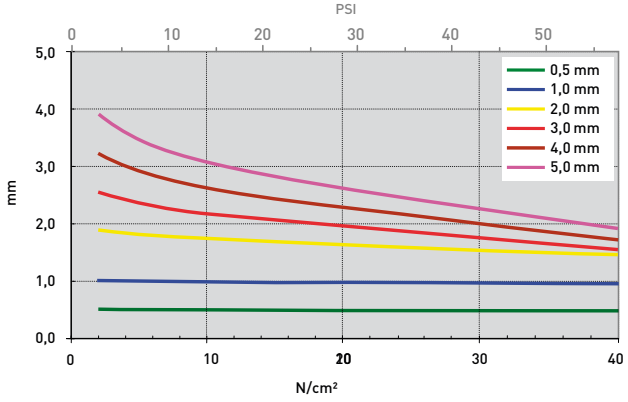
For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs / Graphics cards

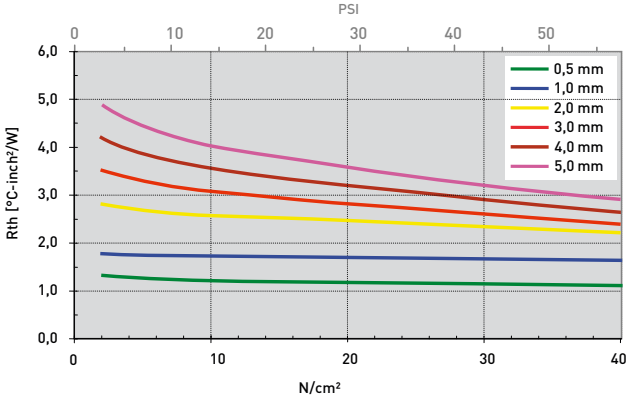
PROPERTY	UNIT	TGF-AXS0500-SI-GF	TGF-AXS1000-SI-GF	TGF-AXS2000-SI-GF	TGF-AXS3000-SI-GF	TGF-AXS5000-SI-GF
MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		White / Pink	White / Pink	White / Pink	White / Pink	White / Pink
Reinforcement		Fibreglass laminate	Fibreglass laminate	Fibreglass laminate	Fibreglass laminate	Fibreglass laminate
Specific Density	g/cm³	2.1	2.1	2.1	2.1	2.1
Thickness	mm	0.5 $^{\pm 0.10}$	1.0 $^{\pm 0.10}$	2.0 $^{\pm 0.20}$	3.0 $^{+0.50}_{-0.10}$	5.0 $^{\pm 0.50}$
Hardness (Bulk elastomer) (With fibreglass laminate)	Shore 00 Shore 00	5 45	5 45	5 45	5 45	5 45
Shelf Life (unopened, dry storage conditions @ < 40° C)	Months	24	24	24	24	24
UL Flammability	UL 94	V0	V0	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes	Yes	Yes
THERMAL						
Resistance[1] @ 35 PSI @ Thickness	°C-inch²/W (mm)	1.13 (0.47)	1.66 (0.94)	2.38 (1.57)	2.69 (1.85)	3.38 (2.41)
Resistance[1] @ 15 PSI @ Thickness	°C-inch²/W (mm)	1.18 (0.48)	1.71 (0.97)	2.58 (1.73)	3.08 (2.18)	4.00 (3.05)
Resistance[1] @ 7 PSI @ Thickness	°C-inch²/W (mm)	1.27 (0.49)	1.73 (0.98)	2.69 (1.80)	3.30 (2.37)	4.41 (3.45)
Thermal Conductivity[1]	W/mK	1.1	1.1	1.1	1.1	1.1
Operating Temperature Range	°C	- 50 to + 200	- 50 to + 200	- 50 to + 200	- 50 to + 200	- 50 to + 200
ELECTRICAL						
Dielectric Strength	kV / mm	> 8	> 8	> 8	> 8	> 8

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 / 7.0 mm / 8.0 mm / 9.0 mm / 10.0 mm

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





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