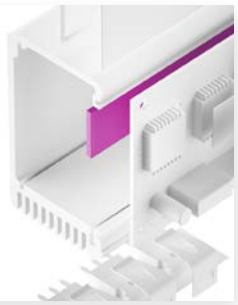
SILICONE-FREE GAP FILLER PAD TGF-W-NS

siloxane-free, soft acrylate

TGF-W-NS is an electrically insulating extremely thermally conductive silicone-free 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. The acrylate based elastomer does not contain any volatile siloxanes which are inevitably emitted by silicones. Due to the specific formulation and filling with ceramic particles the material has an extremely high thermal conductivity. Through its softness the material perfectly mates to irregular surfaces thus filling gaps and operates 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 02 / 2021

Technical Data Sheet

PROPERTIES

- Silicone-free acrylate
- No emission of volatile siloxanes
- Soft and compliable
- Thermal conductivity: 6.0 W/mK
- Shock absorbing
- Easy mounting through self-tackiness

AVAILABILITY

- Sheet 400 x 200 mm
- Double-side tacky (TGF-WXXXX-NS)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

Thermal link of:

- SMD packages
- Through-hole vias
- RDRAMs memory modules
- Electronic parts to heat pipes

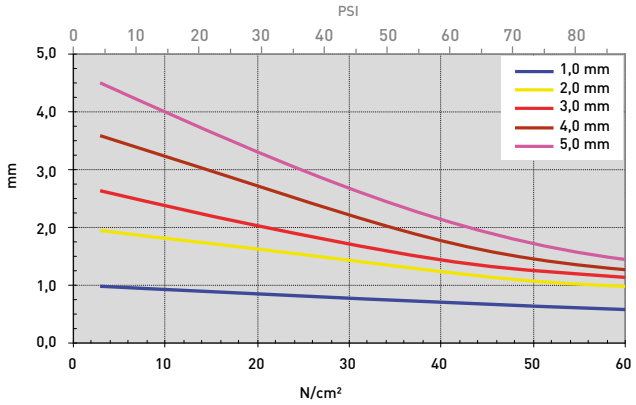
For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs

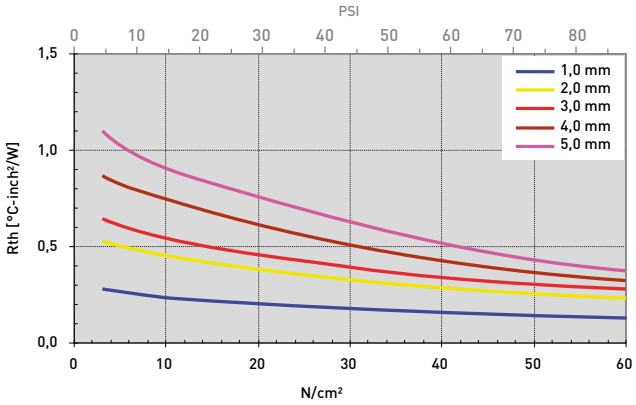
PROPERTY	UNIT	TGF-W1000-NS	TGF-W2000-NS	TGF-W3000-NS	TGF-W4000-NS	TGF-W5000-NS
MATERIAL		Ceramic filled silicone-free acrylic elastomer	Ceramic filled silicone-free acrylic elastomer	Ceramic filled silicone-free acrylic elastomer	Ceramic filled silicone-free acrylic elastomer	Ceramic filled silicone-free acrylic elastomer
Colour		Pink	Pink	Pink	Pink	Pink
Specific Gravity	g/cm³	3.1	3.1	3.1	3.1	3.1
Thickness	mm	1.0 ±0.10	2.0 ±0.20	3.0 ±0.30	4.0 ±0.40	5.0 ±0.50
Hardness	Shore 00	70	70	70	70	70
Flammability (Equivalent)	UL 94	V0	V0	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes	Yes	Yes
THERMAL						
Resistance[1] @ 60 PSI @ Thickness	°C-inch²/W (mm)	0.16 (0.67)	0.28 (1.19)	0.35 (1.43)	0.43 (1.74)	0.52 (2.12)
Resistance[1] @ 30 PSI @ Thickness	°C-inch²/W (mm)	0.22 (0.82)	0.39 (1.61)	0.46 (2.03)	0.62 (2.75)	0.77 (3.30)
Resistance[1] @ 10 PSI @ Thickness	°C-inch²/W (mm)	0.26 (0.93)	0.49 (1.83)	0.60 (2.50)	0.79 (3.40)	0.98 (4.20)
Thermal Conductivity[1]	W/mK	6.0	6.0	6.0	6.0	6.0
Operating Temperature Range	°C	- 40 to +130	- 40 to +130	- 40 to +130	- 40 to +130	- 40 to +130
ELECTRICAL						
Dielectric Strength	kV / mm	7.8	7.8	7.8	7.8	7.8
Volume Resistivity	Ohm - cm	1 x 10^{13}	1 x 10^{13}	1 x 10^{13}	1 x 10^{13}	1 x 10^{13}

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: 1.0 mm / 1.5 mm / 2.0 mm / 2.5 mm / 3.0 mm / 3.5 mm / 4.0 mm / 4.5 mm / 5.0 mm

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





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