

# SILICONE-FREE GAP FILLER PAD TGF-XP-NS



siloxane-free, plastic

TGF-XP-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 butadiene elastomer as base 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 and plasticity the material perfectly mates to irregular surfaces thus filling gaps and operates at low pressure. By its use the total thermal resistance is minimised.



Release 02 / 2021

### PROPERTIES

- Silicone-free
- No emission of siloxanes through silicone-freeness
- Soft and compliant
- Thermal conductivity: 7 W/mK

### AVAILABILITY

- Sheet 100 x 100 mm
- Double-side tacky (TGF-XPXXX-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

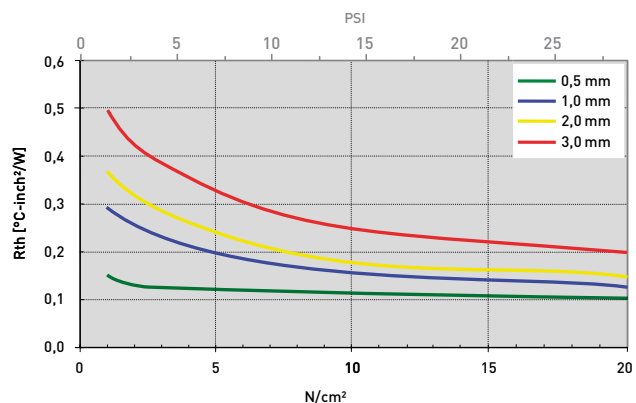
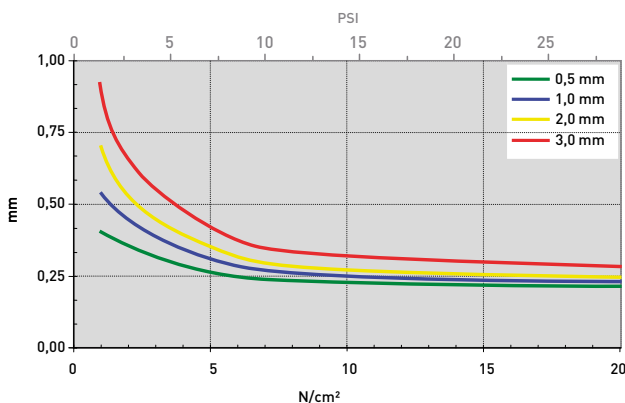
Technical Data Sheet

PROPERTY	UNIT	TGF-XP0500-NS	TGF-XP1000-NS	TGF-XP2000-NS	TGF-XP3000-NS
<b>MATERIAL</b>					
		Ceramic filled silicone-free elastomer	Ceramic filled silicone-free elastomer	Ceramic filled silicone-free elastomer	Ceramic filled silicone-free elastomer
Colour		Light Grey	Light Grey	Light Grey	Light Grey
Thickness	mm	0.5	1.0	2.0	3.0
Hardness	Shore 00	70	70	70	70
Flammability (Equivalent)	UL 94	HB	HB	HB	HB
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes	Yes
<b>THERMAL</b>					
Resistance <sup>1</sup> @ 30 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.11 [0.21]	0.13 [0.23]	0.15 [0.24]	0.20 [0.28]
Resistance <sup>1</sup> @ 15 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.12 [0.23]	0.16 [0.25]	0.18 [0.27]	0.25 [0.32]
Resistance <sup>1</sup> @ 7 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.13 [0.26]	0.20 [0.31]	0.24 [0.35]	0.33 [0.45]
Thermal Conductivity <sup>1</sup>	W/mK	7	7	7	7
Operating Temperature Range	°C	- 40 to + 150	- 40 to + 150	- 40 to + 150	- 40 to + 150
<b>ELECTRICAL</b>					
Dielectric Strength	kV / mm	5.8	5.8	5.8	5.8
Dielectric Constant	@ 1 MHz	3.8	3.8	3.8	3.8

Measurement technique according to: '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 / 1.5 mm / 2.0 mm / 2.5 mm / 3.0 mm

mm vs. N/cm<sup>2</sup> (PSI) / Rth vs. N/cm<sup>2</sup> (PSI)



All technical data and information are without warranty and believed to be reliable and accurate corresponding to the latest state of the art. Since the products are not provided to conform with mutually agreed specifications and their use and processing are unknown we cannot guarantee results, freedom from patent infringement, or their suitability for any application. Product testing by the applicant is recommended. We reserve the right of changes.