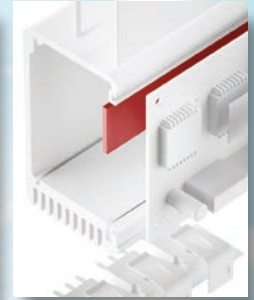


# SILICONE-FREE GAP FILLER TGF-G-NS



siloxane-free, elastic TPE

TGF-G-NS is an electrically insulating 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 TPE polymer 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 a high thermal conductivity. Through its high 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 04 / 2014

### PROPERTIES

- Silicone-free TPE polymer
- Soft and compliant
- Thermal conductivity: 1.5 W/mK
- Operates at low pressure
- Shock absorbing
- Easy mounting through self tackiness
- Two-side self-tacky

### AVAILABILITY

- Sheet 300 x 200 mm
- Tacky on both sides (TGF-GXXXX-NS)
- Die cut parts
- Kiss cut parts on sheet

### APPLICATION EXAMPLES

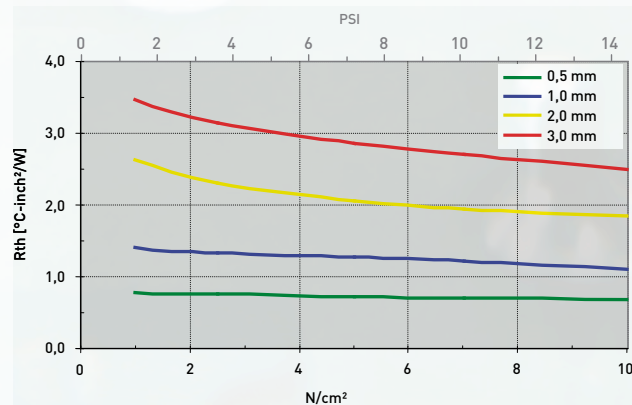
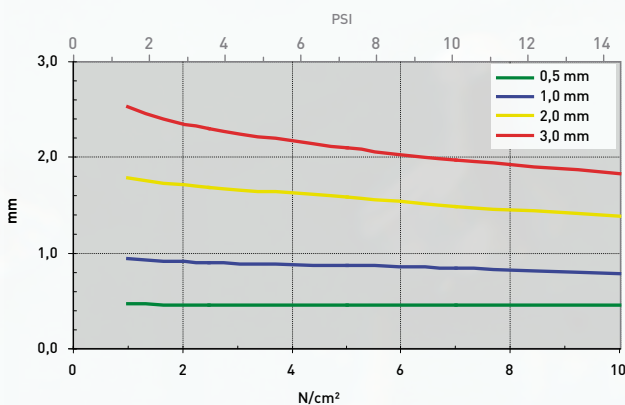
- Thermal link of:
- SMD packages
  - Through-hole vias
  - RDRAMs memory modules
  - Electronic parts to heat pipes
- For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs

Property	Unit	TGF-G0500-NS	TGF-G1000-NS	TGF-G2000-NS
<b>Material</b>		Ceramic filled silicone-free TPE elastomer	Ceramic filled silicone-free TPE elastomer	Ceramic filled silicone-free TPE elastomer
Colour		Brick Red	Brick Red	Brick Red
Thickness	mm	0.5	1.0	2.0
Specific Gravity	g/cm <sup>3</sup>	1.7	1.7	1.7
Hardness	Shore 00	55	55	55
UL Flammability [Equivalent]	UL 94	VO	VO	VO
RoHS Conformity	2002/95/EC	Yes	Yes	Yes
<b>Thermal</b>				
Resistance <sup>1</sup> @ 15 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.69 [0.46]	1.11 [0.79]	1.84 [1.40]
Resistance <sup>1</sup> @ 7 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.72 [0.47]	1.27 [0.88]	2.05 [1.60]
Resistance <sup>1</sup> @ 3 PSI @ Thickness	°C-inch <sup>2</sup> /W (mm)	0.77 [0.48]	1.36 [0.93]	2.41 [1.73]
Thermal Conductivity	W/mK	1.5	1.5	1.5
Operating Temperature Range	°C	- 40 to + 120	- 40 to + 120	- 40 to + 120
<b>Electrical</b>				
Dielectric Strength	kV / mm	> 10	> 10	> 10
Volume Resistivity	Ohm - cm	1.0 x 10 <sup>10</sup>	1.0 x 10 <sup>10</sup>	1.0 x 10 <sup>10</sup>

Test Methods: <sup>1</sup>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)



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