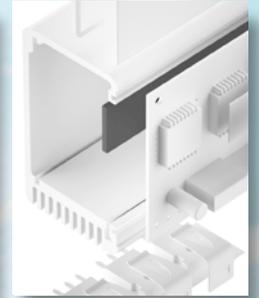


SILICONE-FREE GAP FILLER TGF-GUS-NS



siloxane-free, extremely elastic TPE

TGF-GUS-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 extreme softness the material perfectly mates to irregular surfaces thus filling gaps and operates 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.



Release 04 / 2014

PROPERTIES

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

AVAILABILITY

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

APPLICATION EXAMPLES

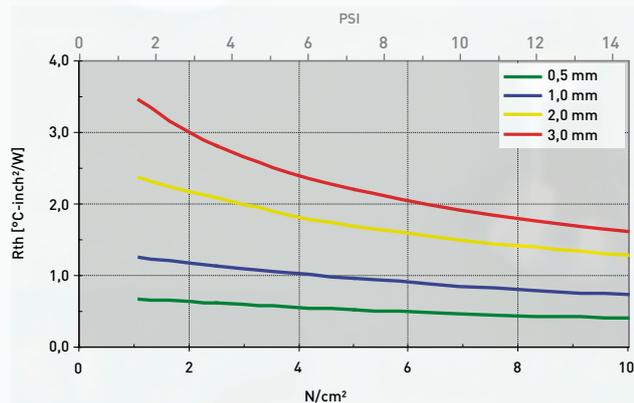
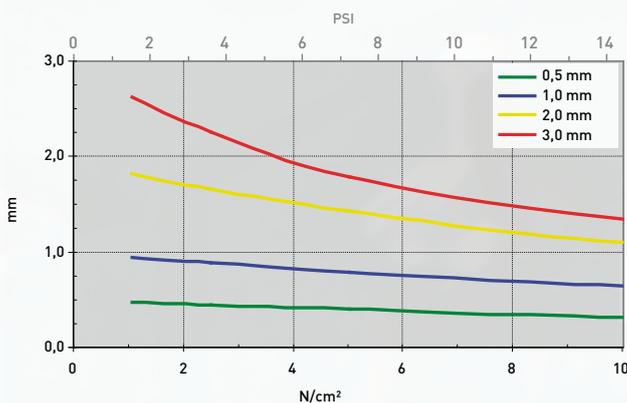
- Thermal link of:
- SMD packages
 - Through-hole vias
 - RDRAMs memory modules
 - Electronic parts to heat pipes
- For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs

Property	Unit	TGF-GUS0500-NS	TGF-GUS1000-NS	TGF-GUS2000-NS
Material		Ceramic filled silicone-free TPE elastomer	Ceramic filled silicone-free TPE elastomer	Ceramic filled silicone-free TPE elastomer
Colour		Black	Black	Black
Thickness	mm	0.5	1.0	2.0
Specific Gravity	g/cm ³	1.7	1.7	1.7
Hardness	Shore 00	25	25	25
UL Flammability [Equivalent]	UL 94	VO	VO	VO
RoHS Conformity	2002/95/EC	Yes	Yes	Yes
Thermal				
Resistance ¹ @ 15 PSI @ Thickness	°C-inch ² /W (mm)	0.42 (0.32)	0.74 (0.63)	1.30 (1.11)
Resistance ¹ @ 7 PSI @ Thickness	°C-inch ² /W (mm)	0.54 (0.39)	0.98 (0.78)	1.70 (1.44)
Resistance ¹ @ 3 PSI @ Thickness	°C-inch ² /W (mm)	0.64 (0.45)	1.19 (0.90)	2.20 (1.72)
Thermal Conductivity	W/mK	1.5	1.5	1.5
Operating Temperature Range	°C	- 40 to + 120	- 40 to + 120	- 40 to + 120
Electrical				
Dielectric Strength	kV / mm	> 10	> 10	> 10
Volume Resistivity	Ohm - cm	1.0 x 10 ¹⁰	1.0 x 10 ¹⁰	> 1.0 x 10 ¹⁰

Test Methods: ¹ASTM 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/cm² (PSI) / Rth vs. N/cm² (PSI)



All technical data and information are without warranty and believed to be reliable and accurate. 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.