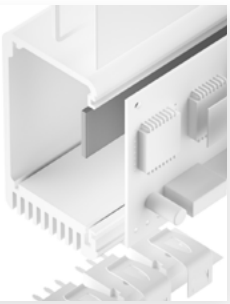
SILICONE GAP FILLER PAD TGF-Z12P-SI

plastic, soft

TGF-Z12P-SI is an electrically insulating thermally conductive very high performance silicone gap filler. It is ideal for use in applications where a very good 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 an extremely high thermal conductivity. Through its high softness and plasticity the material perfectly mates to irregular surfaces thus filling gaps 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 / 2025

PROPERTIES

- Plastic
- Soft and compliable
- Thermal conductivity: 12 W/mK
- Extraordinary chemical resistance and longterm stability
- One or two-side self-tacky

AVAILABILITY

- Sheet 200 x 400 mm
- Tacky on both sides (TGF-Z12PXXXX-SI)
- Tacky on one side (TGF-Z12PXXXX-SI-A1)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

Thermal link of:

- SMD packages
- Through-hole-vias
- Capacitors
- Electronic parts to heat pipes

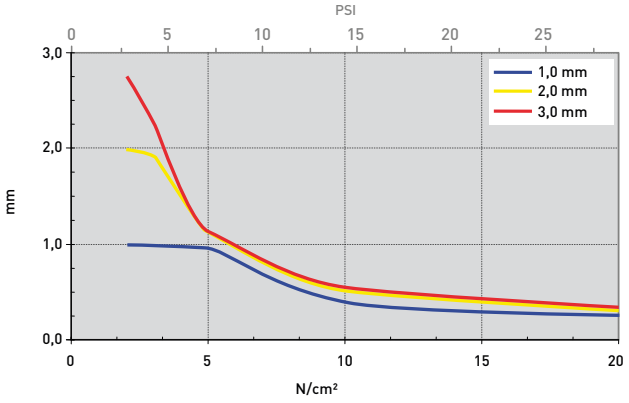
For use in 5G base stations / Automotive applications / Laptops / Medicine engineering / Industrial PCs

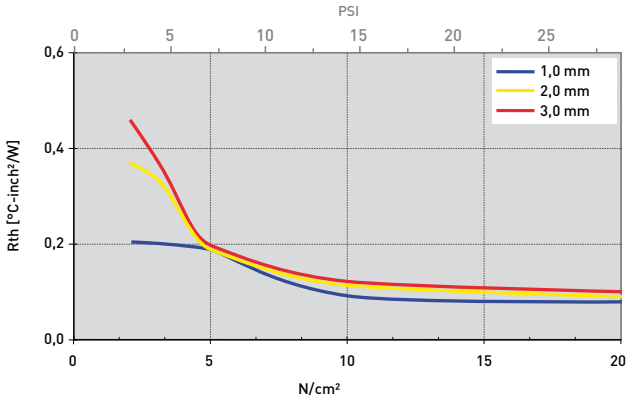
PROPERTY	UNIT	TGF-Z12P1000-SI	TGF-Z12P2000-SI	TGF-Z12P3000-SI
MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Grey	Grey	Grey
Density	g/cm³	3.38	3.38	3.38
Thickness	mm	1.0 ±0.10	2.0 ±0.20	3.0 ±0.30
Hardness	Shore 00	38	38	38
Shelf life (unopened, dry storage conditions @< 40°C)	Months	12	12	12
UL Flammability (Equivalent)	UL 94	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes
THERMAL				
Resistance¹ @ 30 PSI @ Thickness	°C-inch²/W (mm)	0.08 (0.26)	0.09 (0.30)	0.10 (0.34)
Resistance¹ @ 7 PSI @ Thickness	°C-inch²/W (mm)	0.19 (0.97)	0.19 (1.16)	0.20 (1.18)
Resistance¹ @ 3 PSI @ Thickness	°C-inch²/W (mm)	0.21 (0.99)	0.37 (1.98)	0.47 (2.74)
Thermal Conductivity¹	W/mK	12	12	12
Operating Temperature Range	°C	- 60 to + 150	- 60 to + 150	- 60 to + 150
ELECTRICALLY				
Dielectric Strength	kV / mm	> 6.0	> 6.0	> 6.0
Volume Resistivity	Ohm - cm	1 x 10^{13}	1 x 10^{13}	1 x 10^{13}

Measurement technique according to: ¹ASTM 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)





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.

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