ultra soft, with or without fibreglass reinforcement

TGF-MXS-SI is an electrically insulating thermally conductive silicone 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. Due to the specific formulation and filling with ceramic particles the silicone elastomer has a high thermal conductivity. Through its ultra softness and flexibility the material perfectly mates to irregular surfaces thus filling gaps at minimum pressure. By its use the total thermal resistance is minimised. The natural tackiness of the material allows for an easy and reliable pre-assembly. The optional conductive fibreglass reinforced silicone laminate on one side provides for a high mechanic stability and strengh.



Release 01 / 2025

**Technical Data Sheet** 

## **PROPERTIES**

- Ultra soft and compliable
- ☐ Thermal conductivity: 2.4 W/mK
- Operates at minimum pressure
- Extraordinary chemical resistance and longterm stability
- ☐ Shock absorbing
- Easy mounting through self tackiness
- One or two-side self-tacky

## **AVAILABILITY**

- ☐ Sheet 200 x 400 mm
- Tacky on both sides (TGF-MXSXXXX-SI)
- □ Tacky on one side by fibreglass reinforced laminate (TGF-MXSXXXX-SI-GF)
- Die cut parts
- Kiss cut parts on sheet

## APPLICATION EXAMPLES

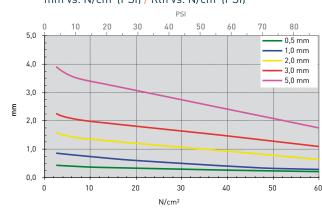
Thermal link of:

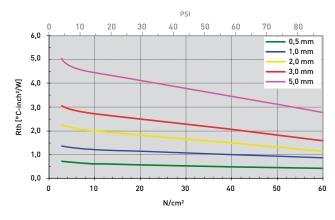
- SMD packages
- Through-hole vias
- Capacitors
- Electronic parts to heat pipes For use in Automotive applications / Laptops / Medicine engineering / Industrial PCs

PROPERTY	UNIT	TGF-MXS0500- SI	TGF-MXS1000- SI	TGF-MXS2000- SI	TGF-MXS3000-SI
MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Grey (/ Red laminate)	Grey (/ Red laminate)	Grey (/ Red laminate)	Grey (/ Red laminate)
Optional Reinforcement (TGF-MXSXXXX-SI-GF)		Fibreglass laminate	Fibreglass laminate	Fibreglass laminate	Fibreglass laminate
Thickness	mm	0.5 ±0.10	1.0 ±0.10	2.0 ±0.20	3.0 ±0.30
Hardness	Shore 00	25	25	25	25
UL Flammability	UL 94	V0	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes	Yes
THERMAL					
Resistance <sup>1</sup> @ 60 PSI @ Thickness	°C-inch²/W (mm)	0.44 (0.25)	1.00 (0.45)	1.49 (0.86)	2.05 (1.50)
Resistance¹ @ 30 PSI @ Thickness	°C-inch²/W (mm)	0.53 (0.32)	1.15 (0.63)	1.79 (1.15)	2.50 (1.73)
Resistance <sup>1</sup> @ 10 PSI @ Thickness	°C-inch²/W (mm)	0.63 (0.40)	1.26 (0.75)	2.03 (1.40)	2.77 (2.05)
Thermal Conductivity	W/mK	2.4	2.4	2.4	2.4
Operating Temperature Range	°C	- 40 to + 200			
ELECTRICAL					
Dielectric Strength	kV / mm	4	4	4	4
Volume Resistivity	0hm - cm	1.7 x 10 <sup>13</sup>			

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 / 2.0 mm / 3.0 mm / 4.0 mm / 5.0 mm / ... / 10.0 mm. Other thicknesses on request mm vs. N/cm<sup>2</sup> (PSI) / Rth vs. N/cm<sup>2</sup> (PSI)





and information are cessing are unknown

technical data