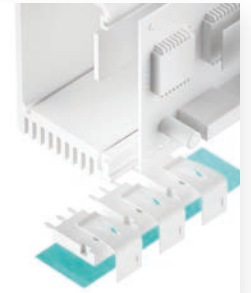


SILICONE FOIL TFO-X-SI

fibreglass reinforced



TFO-X-SI is a high performance electrically insulating thermally conductive silicone foil for an optimised thermal coupling between electronic packages and heat sinks. Through the specific formulation and filling with highly thermally conductive ceramic particles an excellent thermal conductivity is reached. Its conformal surface structure guarantees a very good compliance to the contact surfaces. Thus the total thermal resistance is minimised. The fibreglass reinforcement provides for an outstanding mechanic stability and cutthrough resistance as well as easy handling. For an easy and reliable preassembly the interface material is available with low tack pressure sensitive adhesive on one side.



Release 03 / 2020

PROPERTIES

- Thermal conductivity: 5.0 W/mK
- High surface compliance
- Excellent thermal contact
- Outstanding mechanic stability through fibreglass reinforcement
- Extraordinary chemical resistance and longterm stability
- Residue-free removal after use

AVAILABILITY

- Sheet 440 x 510 mm
- Non tacky (TFO-XXXX-SI)
- Tacky on one side (TFO-XXXX-SI-A1)
- Die cut parts
- Kiss cut parts on sheet

APPLICATION EXAMPLES

Thermal link of:

- MOSFETs or IGBTs
- Power diodes or AC/DC converters
- Power modules

For use in Switch mode power supplies / Motor control units / Automotive engine management systems / UPS units / Solar systems

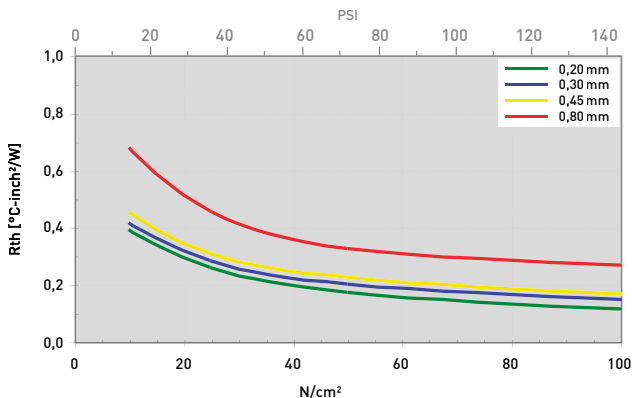
Technical Data Sheet

PROPERTY	UNIT	TFO-X200-SI	TFO-X300-SI	TFO-X450-SI	TFO-X800-SI
MATERIAL					
MATERIAL		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		White	White	White	White
Reinforcement		Fibreglass	Fibreglass	Fibreglass	Fibreglass
Thickness	mm	0.20 ±0.05	0.30 ±0.05	0.45 ±0.05	0.80 ±0.05
Tensile Strength ¹	kpsi	1.3	1.2	0.7	0.6
UL Flammability	UL 94	V0	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes	Yes
Thermal					
Resistance ² @ 150 PSI	°C-inch ² /W	0.11	0.15	0.17	0.27
Resistance ² @ 30 PSI	°C-inch ² /W	0.29	0.32	0.35	0.52
Thermal Conductivity ²	W/mK	5.0	5.0	5.0	5.0
Operating Temperature Range	°C	- 50 to + 200	- 50 to + 200	- 50 to + 200	- 50 to + 200
Electrical					
Breakdown Voltage ³	kV AC	3.0	6.0	9.0	> 10
Volume Resistivity	Ohm - cm	1.7 x 10 ¹⁵	7.9 x 10 ¹⁵	9.2 x 10 ¹⁵	8.9 x 10 ¹⁵
Dielectric Constant	@ 1 MHz	3.3	3.3	3.3	3.3

Measurement technique according to: ¹ ASTM D 412, ² ASTM D 5470, ³ ASTM D 149. All data without warranty and subject to change. Please contact us for further data and information. Shelf life adhesive: 6 months when stored in original packaging at room temperature and 50% relative humidity.

Thicknesses: 0.20 mm / 0.30 mm / 0.45 mm / 0.80 mm

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.