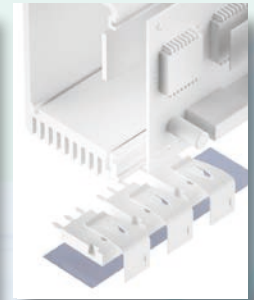


SILICONE FOIL TFO-D-SI

fibreglass reinforced, highly dielectric



TFO-D-SI is an electrically insulating thermally conductive silicone foil for an optimised thermal coupling between electronic packages and heat sinks. Through the specific formulation and filling with thermally conductive ceramic particles a high thermal conductivity is reached. Under pressure the total thermal resistance is minimised. The material is characterised by its very high dielectric properties. The fibreglass reinforcement provides for an outstanding mechanic stability and cut-through resistance as well as easy handling. For an easy and reliable pre-assembly the interface material is available with self tackiness on one side with no need for an additional adhesive coating or with a one side adhesive coating.



Release 8 / 2017

PROPERTIES

- Thermal conductivity: 1.2 W/mK
- High thermal contact
- Outstanding mechanic stability through fibreglass reinforcement
- Very high dielectric strength
- Extraordinary chemical resistance and longterm stability
- Residue-free removal after use

AVAILABILITY

- Sheet 300 x 1000 mm
- Roll 300 mm x 50 m
- Non tacky (TFO-DXXX-SI)
- Self tacky on one side without adhesive coating (TFO-DXXX-SI-A0)
- One side adhesive (TFO-DXXX-SI-A1)
- Die cut parts
- Kiss cut parts on roll
- Kiss cut parts on sheet

APPLICATION EXAMPLES

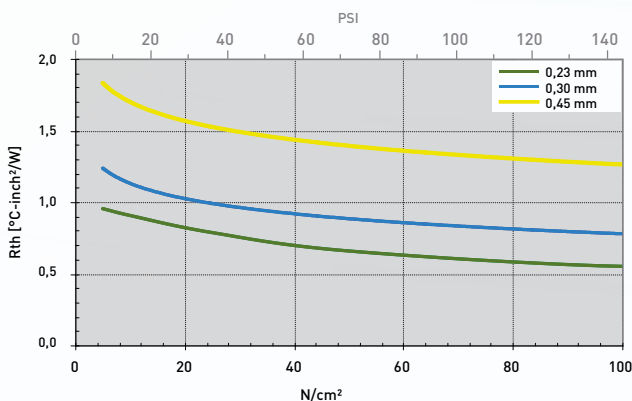
- Thermal link of:
- MOSFETs or IGBTs
 - Power diodes or AC/DC converters
 - Power modules
- For use in Switch mode power supplies / Motor control units / Automotive engine management systems / UPS units / Solar systems

PROPERTIES	Unit	TFO-D230-SI	TFO-D300-SI	TFO-D450-SI
Material		Ceramic filled silicone	Ceramic filled silicone	Ceramic filled silicone
Colour		Grey	Grey	Grey
Reinforcement		Fibreglass	Fibreglass	Fibreglass
Thickness	mm	0.23	0.3	0.45
Tensile Strength ¹	kpsi	5.0	4.1	2.9
UL Flammability	UL 94	VO	VO	VO
RoHS Conformity	2011 / 65 / EU	Yes	Yes	Yes
Thermal				
Resistance ² @ 150 PSI	°C-inch ² /W	0.55	0.75	1.25
Resistance ² @ 30 PSI	°C-inch ² /W	0.79	1.05	1.55
Thermal Conductivity	W/mK	1.2	1.2	1.2
Operating Temperature Range	°C	- 50 to + 180	- 50 to + 180	- 50 to + 180
Electrical				
Breakdown Voltage ³	kV AC	5.5	> 6.0	> 6.0
Volume Resistivity	Ohm - cm	> 1.0 x 10 ¹¹	> 1.0 x 10 ¹¹	> 1.0 x 10 ¹¹
Dielectric Constant	@ 1 MHz	6.0	6.0	6.0

Test Methods: 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 live adhesive: 6 months when stored in original packaging at room temperature and 50% relative humidity.

Thicknesses: 0.23 mm / 0.30 mm / 0.45 mm

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.