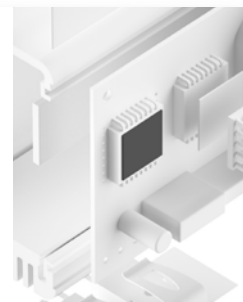


TFO-S-CB consists of more than 98% pure natural graphite. Due to the flake-like shape they show anisotropic thermal conductivities in-plane (x-y-plane) and in through direction (z-direction). Their softness allows for a good compliance to the contact surfaces. Thus the total thermal resistance is minimised. Their low densities compared to copper (15%) or aluminum (50%) make them ideal for applications where low weight is required. The very high temperature resistance allows for the use in extreme hot environments.



Release 09 / 2026

PROPERTIES

- ☐ Maximum contact through good surface compliance
- ☐ Very low weight
- ☐ Silicone-free
- ☐ Very high temperature resistance
- ☐ EMI-shielding through high electrical conductivity

AVAILABILITY

- ☐ Sheet 300 x 500 mm
- ☐ Roll 300 mm x 50 m
- ☐ Die cut parts
- ☐ Non adhesive (TFO-SXXX-CB)
- ☐ Adhesive on one side (TFO-SXXX-CB-A1)

APPLICATION EXAMPLES

Thermal link of:

- ☐ CPUs to heat sinks
- ☐ Power modules
- ☐ Semiconductors
- ☐ IGBTs

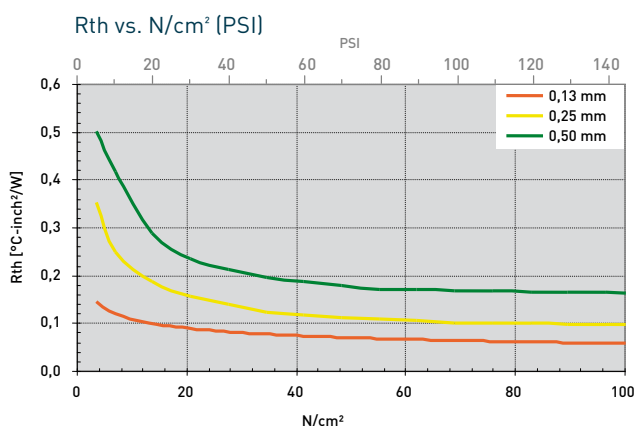
For use in Power inverters / Laptops / Automotive power supplies / Industrial PCs

Technical Data Sheet

PROPERTY	UNIT	TFO-S130-CB	TFO-S250-CB	TFO-S500-CB
MATERIAL				
Colour		Natural Graphite 98%	Natural Graphite 98%	Natural Graphite 98%
Thickness	mm	Grey	Grey	Grey
Hardness	Shore A	0.13 ±0.03	0.25 ±0.03	0.5 ±0.05
UL Flammability	UL 94	85	85	85
RoHS Conformity	2015 / 863 / EU	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes
THERMAL				
Resistance ¹ @ 150 PSI	°C-inch ² /W	0.06	0.10	0.16
Resistance ¹ @ 30 PSI	°C-inch ² /W	0.09	0.16	0.23
Resistance ¹ @ 10 PSI	°C-inch ² /W	0.12	0.24	0.40
Thermal Conductivity (Z Direction)	W/mK	8	8	8
Thermal Conductivity (X-Y Direction)	W/mK	140	140	140
Operating Temperature Range	°C	- 250 to + 400	- 250 to + 400	- 250 to + 400
ELECTRICAL				
Volume Resistivity	Ohm - cm	11.0 x 10 ⁻⁴	11.0 x 10 ⁻⁴	11.0 x 10 ⁻⁴
Dielectric Constant	@ 1 MHz	< 0.001	< 0.001	< 0.001

Measurement technique according to: 'ASTM D 5470. Typical, non-binding values. Not intended for specification purposes. Subject to technical changes. Please contact us for further information. Shelf life adhesive: 6 months when stored in original packaging at room temperature and 50% relative humidity.

Thicknesses: 0.13 mm / 0.25 mm / 0.5 mm



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.