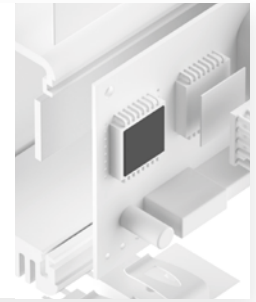


PYROLYTIC GRAPHITE FOIL TFO-Y-PG

highly anisotropic conductive



TFO-Y-PG consists of pure pyrolytic graphite. Due to the synthetic structure it shows highly anisotropic heat spreading conductivities in-plane (x-y-plane) and in through direction (z-direction). Its softness allows for a good compliance to the contact surfaces. Thus the total thermal resistance is minimised. Their low densities make them ideal for applications where low weight is required. The very high temperature resistance allows for the use in extreme hot environments. Due to its flexibility it is bending-resistant. It can be used for curved surfaces and corners because its thermal conductivity will remain unchanged in the absence of sharp folds. Special configurations are dielectric with insulating films or laminated on flexible gap filler elastomers.



Release 03 / 2020

PROPERTIES

- Maximum contact through good surface compliance
- Very low weight
- Silicone-free
- Very high temperature resistance
- EMI-shielding through high electrical conductivity
- UL V0

AVAILABILITY

- Sheet 115 x 180 mm
- Sheet 180 x 230 mm (0.07 - 0.1 mm Thickness)
- Non adhesive (TFO-YXXX-PG)
- Adhesive (TFO-YXXX-PG-A1)
- Die cut parts

SPECIAL CONFIGURATIONS

- With PEEK Laminate (TFO-YXXX-PG-PKXXX)
- With Polyimide Laminate (TFO-YXXX-PG-PIXXX)
- With PET Laminate (TFO-YXXX-PG-PEXXX)
- As laminate on ultrasoft silicone gap filler elastomer (TFO-YXXX-PG-GFXXX)

APPLICATION EXAMPLES

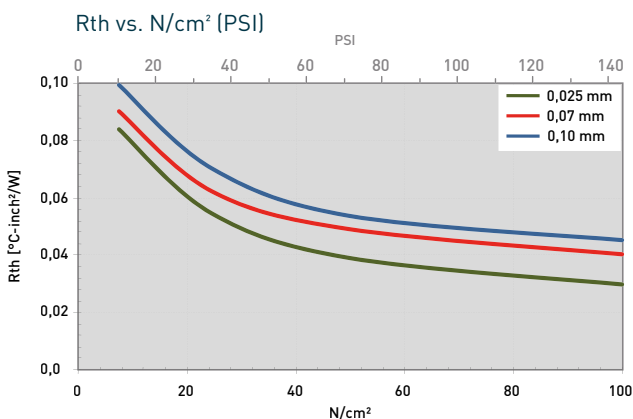
- Thermal link of:
- CPUs to heat sinks
 - Laser diodes
 - TEC modules
- For use in high end computers / Analyzers / Photonics

Technical Data Sheet

PROPERTY	UNIT	TFO-Y025-PG	TFO-Y070-PG	TFO-Y100-PG
MATERIAL				
Material		Pyrolytic Graphite	Pyrolytic Graphite	Pyrolytic Graphite
Colour		Grey	Grey	Grey
Thickness	mm	0.025 ±0.010	0.07 ±0.015	0.10 ±0.030
Density	g/cm³	1.9	1.21	0.85
UL Flammability	UL 94	V0	V0	V0
RoHS Conformity	2015 / 863 / EU	Yes	Yes	Yes
THERMAL				
Resistance¹ @ 150 PSI	°C-inch²/W	0.03	0.04	0,045
Resistance¹ @ 30 PSI	°C-inch²/W	0.06	0.07	0,078
Resistance¹ @ 10 PSI	°C-inch²/W	0.08	0.09	0,10
Thermal Conductivity (Z Direction)	W/mK	18	20	25
Thermal Conductivity (X-Y Direction)	W/mK	1,600	1,000	700
Operating Temperature Range	°C	- 250 to + 400	- 250 to + 400	- 250 to + 400
ELECTRICAL				
Electrical Conductivity	S/cm	20,000	10,000	10,000

Measurement technique according to: ASTM D 5470. 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: 0.025 mm / 0.04 mm / 0.05 mm / 0.07 mm / 0.10 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.