

Polytec GF 180

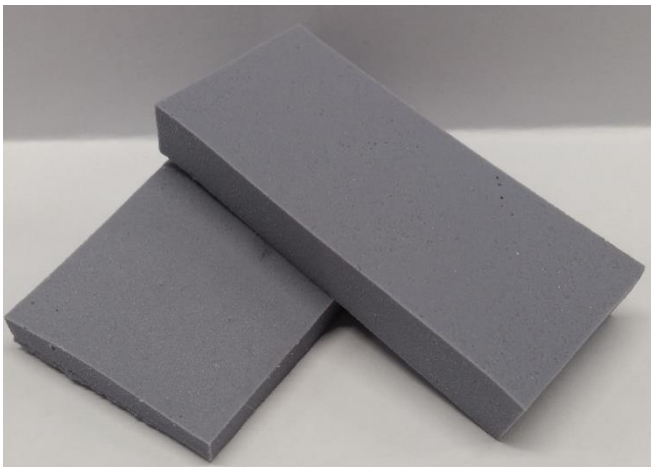
Properties

Polytec GF 180 is a thermally conductive, silicone-free and non-abrasive 2-part gapfiller. It is easy and convenient to use for heat sinking and thermal management applications in the electronics and automotive industry, e.g., by filling and leveling gaps between parts that will heat up during operation, and the respective cooling plates.

Features

- Dual-component
- Non-sag, easy to dispense
- Low specific gravity
- Good thermal conductivity
- Self-crosslinking
- Non-abrasive, silicone-free
- Non-hazardous

Illustrative example



Processing



Illustrative example

- Simple processing using standard equipment, dispensing from customized containers (cartridges, hobbocks).
- Process-safe, high level of automation achievable.
- Processing at elevated temperatures (e.g. 60 °C) decreases the viscosity and enables good distribution.
- The material can be removed in non-crosslinked state by simple wiping, possibly supported by commercially available solvents or cleaners.
- During processing and the curing process, chemical substances of the gapfiller are released into the air. Therefore, sufficient ventilation / exhaust must be provided in closed rooms.
- For more information, please see respective material safety data sheet.

Polytec GF 180

Thermally Conductive Gap Filler

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Mechanical Properties	Method	Unit	Technical Data
Basis	-	-	Silicone-free fluid
Filler	-	-	ceramic, non-abrasive
Consistency, appearance	-	-	stable paste, grey
Mixing ratio A:B (volume)		-	10:1
Density A-Part	TM 201.3	g/cm ³	1.9
Density B-Part	TM 201.3	g/cm ³	1.9
Viscosity mix at 23 °C	TM 202.24	Pa s	70±20
Viscosity A-Part at 23 °C	TM 202.24	Pa s	60±20
Viscosity B-Part at 23 °C	TM 202.24	Pa s	55±15
Storage stability in sealed original container	-	months	3
Curing time	-	hours	≥ 48
Material hardness (7d / RT)	-	-	Shore A
Thermal conductivity	TM 503.5	W/mK	1.8
Specific electrical volume resistance at 250 V	TM 402.1	Ω cm	>5 · 10 ⁸
Dielectric strength paste	TM 402.2	kV/mm	≥ 3
Dielectric strength cured (7d / RT)	TM 402.1	kV/mm	≥ 10
Continuous operation temperature	TM 302	°C	80
Intermittent temperature	TM 302	°C	125
Decomposition temperature	TM 302	°C	>150

Please note:

The above listed information is average data based on tests and is believed to be accurate. Polytec PT makes no warranties (expressed or implied) as to their accuracy. The above listed data does not constitute specifications. The processing (particularly the curing conditions) of the material, the process control and the variety of different applications at various customers are not under Polytec PT's control. Therefore, Polytec PT will not be liable for concrete results in any specific application or in any connection with the use of this product. The curing conditions have a major effect on the properties of the cured material. Therefore, it is highly recommended to keep the curing schedule – once established - under tight control. With the release of this data sheet all former data sheets will be null and void. Subject to alteration

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