

PRECITE®

P3 GF 10 black (7813)

PBT GF10

PRECITE® P3 GF 10 black (7813) is a 10% glass fibre reinforced, medium viscous poly(butylene terephthalate) with medium stiffness and toughness as well as high dimensional and chemical resistance.

Properties

Modulus

4.600 MPa

Strength

90 MPa

Impact

25 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

4600 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

90 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

4,0 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

25 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

5 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

185 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

225 °C

Flammability

Flammability

UL 94

1,6 mm Wall thickness

HB Class

General Properties

Density

ISO 1183

23°C

1,37 g/cm³

Molding shrinkage

ISO 294-4

flow

0,6 - 0,8 %

transverse

1,0 - 1,2 %

Rheological Properties

MVR

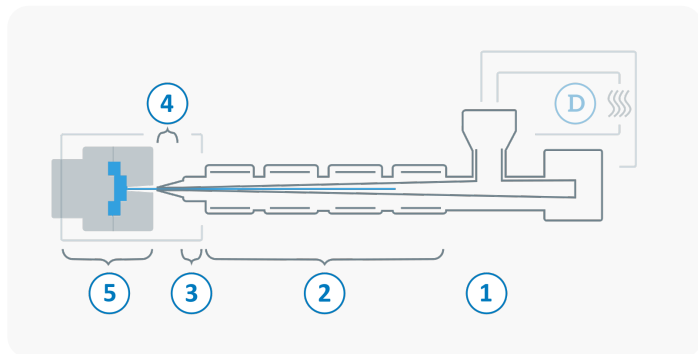
ISO 1133

250°C/2,16kg

18 cm³/10 min

Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



D	Drying time	3 - 4 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	100 - 120 $^{\circ}\text{C}$
	Processing moisture	0,02 - 0,04 %
1	Feed section	60 - 80 $^{\circ}\text{C}$
2	Temperature Zone 1 - Zone 4	250 - 275 $^{\circ}\text{C}$
3	Nozzle temperature	250 - 280 $^{\circ}\text{C}$
4	Melt temperature	260 - 275 $^{\circ}\text{C}$
5	Mold temperature	80 - 100 $^{\circ}\text{C}$
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	30 - 100 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min