

PRECITE® PRELIMINARY

P3 black (7811)

PBT

PRECITE® P3 black (7811) an unreinforced polybutylene terephthalate (PBT) with medium viscosity and good dimensional stability. It is particularly suitable for precision parts in the automotive, E&E or appliances industries.

Features

surface modified Sports & leisure

Properties

Modulus

2.600 MPa

Strength

60 MPa

Impact

90 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

2600 MPa

Tensile stress at yield

ISO 527-2

50 mm/min | d.a.m.

60 MPa

Tensile strain at yield

ISO 527-2

50 mm/min | d.a.m.

6 %

Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

20 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

90 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

55 °C

Temperature of deflection under load HDT/B	0,45 MPa	150 °C
ISO 75		

Melting temperature	DSC, 10K/min	225 °C
ISO 11357-3		

Flammability

Flammability	1,6 mm Wall thickness	HB Class
UL 94		

General Properties

Density	23°C	1,31 g/cm³
ISO 1183		

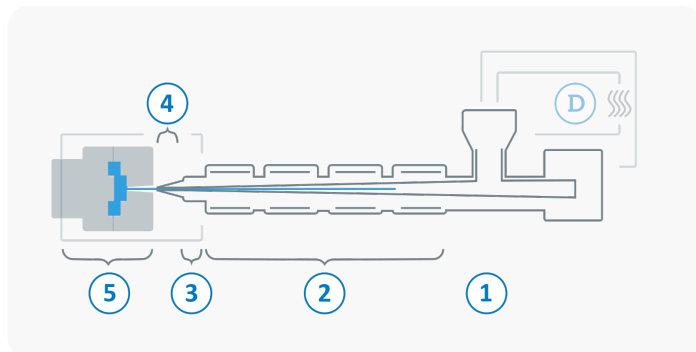
Molding shrinkage	flow	1,8 %
ISO 294-4	transverse	1,8 %

Rheological Properties

MVR	250°C/2,16kg	45 cm³/10 min
ISO 1133		

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	240 - 270 $^{\circ}\text{C}$
3	Nozzle temperature	240 - 280 $^{\circ}\text{C}$
4	Melt temperature	250 - 270 $^{\circ}\text{C}$
5	Mold temperature	60 - 80 $^{\circ}\text{C}$
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	30 - 100 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min