+135-3858-6433 (GuangDong)
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AKRO COMPOUNDS

Compound No.: **7591**

PRECITE® PRELIMINARY

P3 GF 40 black (7591)

PBT GF40

PRECITE® P3 GF 40 black (7591) is a 40% glass fiber reinforced PBT with excellent dimensional stability. Thanks to its low moisture absorption, PRECITE® achieves consistent mechanical and electrical properties, even under changing climatic conditions. With its exceptional combination of high stiffness and elongation, as well as excellent chemical resistance, the compound is ideally suited for precision engineering components in the automotive industry, mechanical engineering, electrical and electronic applications, and household goods.

Properties

Modulus	Strength	Impact
13.000 MPa	**165** MPa	**70** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m.	**13000 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m.	**165 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m.	**2,5 %**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m.	**70 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m.	**12 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**215 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**225 °C**

Flammability

Flammability UL 94	0,8 mm Wall thickness	**HB Class**
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	**1,63 g/cm³**
Molding shrinkage ISO 294-4	flow transverse	**0,1 - 0,3 %** **0,6 - 0,8 %**

Rheological Properties

MVR ISO 1133	250°C/2,16kg	**5 cm³/10 min**

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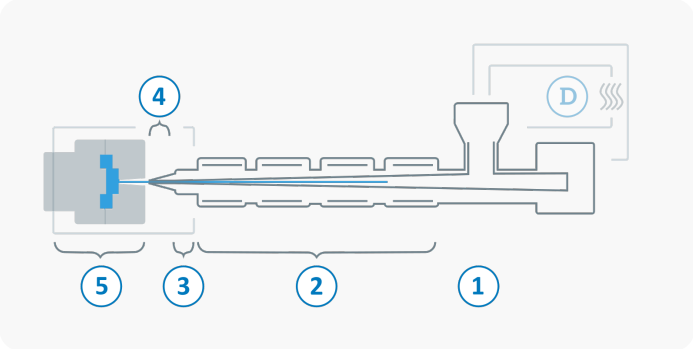
Processing

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 (τ <= -30°C)	100 - 120 °C
	Processing moisture	0,02 - 0,04 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	250 - 275 °C
3	Nozzle temperature	250 - 280 °C
4	Melt temperature	260 - 275 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	30 - 100 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

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Diagrams