

PRECITE® PRELIMINARY

P3 GF 15 4 natural (8429)

PBT-I GF15

PRECITE®P3 GF 15 4 natur (8429) is a 15% glass fibre reinforced and hydrolysis stabilised polybutylene terephthalate (PBT). It is characterised by a good stiffness and toughness as well as good chemical resistance. This formulation is GMA free (glycidyl methacrylate) and meets the VW-50136 standard. Furthermore, the material impresses with very good dimensional stability due to its low moisture absorption. Therefore, the material is perfectly suitable for technical precision components in applications in the automotive industry, mechanical engineering, E&E and household goods industries with increased humidity.

Features

hydrolysis / chemically stabilised electrically neutral Sports & leisure

Properties

Modulus

5.000 MPa

Strength

85 MPa

Impact

55 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

5000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

85 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

55 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

14 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	200 °C
ISO 75		

Flammability

Flammability	0,8 mm Wall thickness	HB Class
UL 94		

General Properties

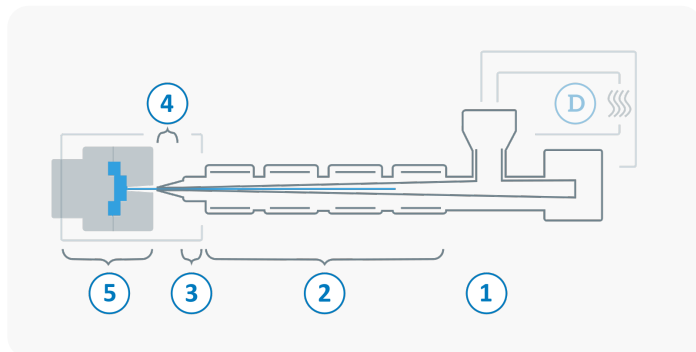
Molding shrinkage	flow	0,2 - 0,4 %
ISO 294-4	transverse	0,8 - 1,0 %

Electrical Properties

Comparative tracking index	Test liquid A	600 V
IEC 60112		

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