

PRECITE® PRELIMINARY

E GF 30 natural (7303)

PET GF30

PRECITE® E GF 30 natural (7303) is a 30% glass fibre reinforced, medium viscous polyethylene terephthalate (PET) with high stiffness and toughness even at elevated temperatures. Due to its low moisture absorption, this material is particularly dimensionally stable and therefore perfectly suitable for precision parts in the automotive, E&E and household goods industries, where a very good surface finish is required.

Features

surface modified reduced moisture E&E metal substitution Sports & leisure

Properties

Modulus	Strength	Impact
10.600 MPa	175 MPa	48 kJ/m ²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min d.a.m.	10600 MPa
Tensile stress at break ISO 527-2	5 mm/min d.a.m.	175 MPa
Tensile strain at break ISO 527-2	5 mm/min d.a.m.	2,5 %
Flexural modulus ISO 178	2 mm/min d.a.m.	11600 MPa
Flexural strength ISO 178	2 mm/min d.a.m.	269 MPa
Flexural strain at break ISO 178	2 mm/min d.a.m.	2,7 %
Charpy impact strength ISO 179-1/1eU	23°C d.a.m.	48 kJ/m ²
Charpy notched impact strength ISO 179-1/1eA	23°C d.a.m.	10 kJ/m ²

Thermal Properties

Melting temperature	DSC, 10K/min	250 °C
ISO 11357-3		

Flammability

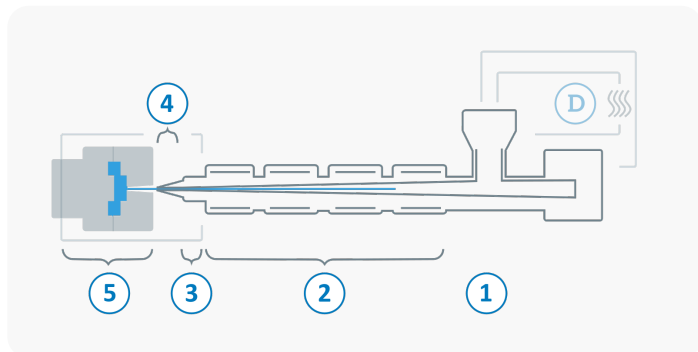
Flammability	0,8 mm Wall thickness	HB Class
UL 94		

General Properties

Density	23°C	1,55 g/cm³
ISO 1183		
Molding shrinkage	flow	0,1 - 0,3 %
	transverse	0,6 - 0,8 %
ISO 294-4		

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 ($\tau \leq -30^{\circ}\text{C}$)	120 - 140 $^{\circ}\text{C}$
	Processing moisture	$\leq 0,02 \%$
1	Feed section	60 - 80 $^{\circ}\text{C}$
2	Temperature Zone 1 - Zone 4	270 - 290 $^{\circ}\text{C}$
3	Nozzle temperature	270 - 295 $^{\circ}\text{C}$
4	Melt temperature	270 - 290 $^{\circ}\text{C}$
5	Mold temperature	130 - 160 $^{\circ}\text{C}$
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	30 - 100 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

Diagrams

