

Compound No.: 8456

# PRECITE® PRELIMINARY P3 GF 20 8 natural (8456)

PBT GF20

PRECITE® P3 GF 20 natural (8456) is a 20 % glass fibre reinforced, medium viscosity polybutylene terephthalate (PBT) with high stiffness and strength. Due to its low moisture absorption, this material has very good dimensional stability. The material corresponds to the European food guideline EU 10/2011 and to the American FDA 21 CFR. This grade is suitable for parts of kitchen and household appliances.

#### Regulatory





#### **Properties**

Modulus	Strength	Impact
<b>7.200</b> MPa	<b>125</b> MPa	<b>65</b> kJ/m²

## **Mechanical Properties**

<b>Tensile modulus</b> ISO 527-2	1 mm/min   d.a.m.	7200 MPa
Tensile stress at break ISO 527-2	5 mm/min   d.a.m.	125 MPa
Tensile strain at break	5 mm/min   d.a.m.	3,7 %
Charpy impact strength ISO 179-1/1eU	23°C   d.a.m.	65 kJ/m²

### **Thermal Properties**

Melting temperature	DCC 40K/min	225 °C
ISO 11357-3	DSC, 10K/min	225 C

## **Flammability**



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Flammability	1.6 mm Wall thickness	HB Class
UL 94	1,5 mm wan directiess	TID Class

# **General Properties**

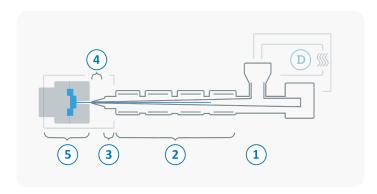
23°C	1,45 g/cm³
flow	0,4 - 0,6 %
transverse	0,9 - 1,1 %
	flow



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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
$\bigcirc$	Holding pressure, spec.	300 - 800 bar
	Back pressure, spec.	30 - 100 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min