

PRECITE® PRELIMINARY

K GF 10 ECO black (8696)

PBT-PET- GF 10

PRECITE® K GF 10 ECO black (8696) is a 10% glass fibre reinforced PBT/PET blend with high strength and improved surface finish. Due to its low moisture absorption, this material is particularly suitable for precision parts in the automotive, E&E or appliances industries. The formulations of the sustainable ECO products are partly based on regenerated post-consumer feedstock and thus contribute to reducing the consumption of valuable raw materials.

Features

surface modified recycled content reduced moisture Sports & leisure

Properties

Modulus

4.800 MPa

Strength

100 MPa

Impact

25 kJ/m²

Sustainability

Recycled content **35 %**

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

4800 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

100 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

25 kJ/m²

-30°C | d.a.m.

20 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

4 kJ/m²

-30°C | d.a.m.

4 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	205 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	225 °C
Melting temperature ISO 11357-3	DSC, 10K/min	245 °C

Flammability

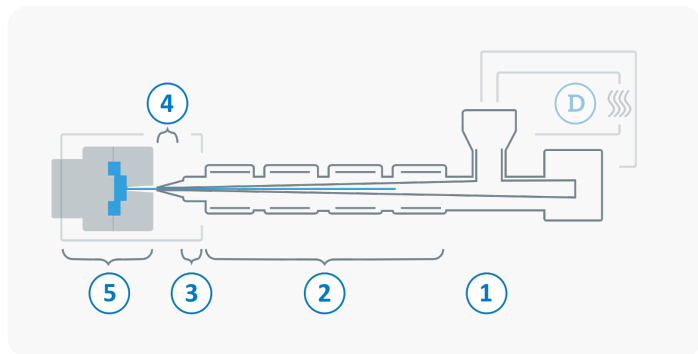
Flammability UL 94	0,8 mm Wall thickness	HB Class
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General Properties

Density ISO 1183	23°C	1,39 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	0,1 - 0,3 %
Molding shrinkage ISO 294-4	flow	0,2 - 0,4 %
	transverse	0,7 - 0,9 %

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	260 - 280 $^{\circ}\text{C}$
(3) Nozzle temperature	260 - 290 $^{\circ}\text{C}$
(4) Melt temperature	270 - 280 $^{\circ}\text{C}$
(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