

PRECITE® PRELIMINARY

K GF 15 ECO black (8328)

PBT-PET- GF 15

PRECITE® K GF 15 ECO black (8328) is a 15% 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 E&E Sports & leisure

Properties

Modulus	Strength	Impact
5.900 MPa	105 MPa	35 kJ/m ²

Sustainability

Recycled content 34 %

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min d.a.m.	5900 MPa
Tensile stress at break ISO 527-2	5 mm/min d.a.m.	105 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.	35 kJ/m ²
Charpy notched impact strength ISO 179-1/1eA	23°C d.a.m.	5 kJ/m ²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	200 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	220 °C
Melting temperature ISO 11357-3	DSC, 10K/min	250 °C

Flammability

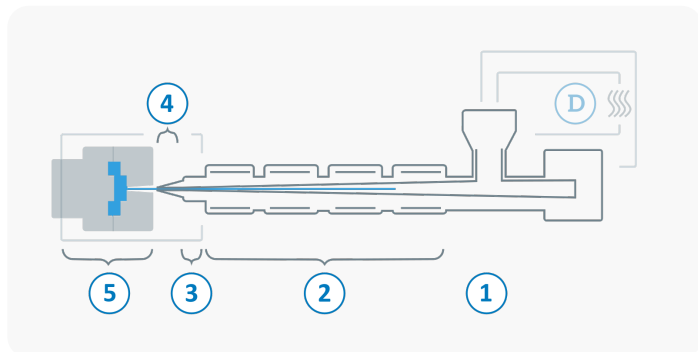
Flammability UL 94	0,8 mm Wall thickness	HB Class
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General Properties

Density ISO 1183	23°C	1,44 g/cm³
Molding shrinkage ISO 294-4	flow	0,5 - 0,7 %
	transverse	0,8 - 1,0 %

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

Diagrams

