

PRECITE®

K ICF 20 4 ECO black (8795)

PBT+PET CF 20

PRECITE® K ICF 20 4 ECO black (8795) is a PBT/PET blend with 20% recycled carbon fiber hydrolysis stabilised. Despite lower density compared to PBT/PET blends with glass fiber reinforcement, the product has very high strength. The good tribological properties and improved surface finish make it the material of choice for precision components in automotive, mechanical engineering, E&E and household goods 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

hydrolysis / chemically stabilised surface modified recycled content

Properties

Modulus

13.600 MPa

Strength

115 MPa

Impact

50 kJ/m²

Sustainability

Recycled content **28 %**

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

13600 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

115 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.

50 kJ/m²

-30°C | d.a.m.

50 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

9 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

210 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

250 °C

Flammability

Flammability

UL 94

1,6 mm Wall thickness

HB Class

General Properties

Density

ISO 1183

23°C

1,32 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 %

Electrical Properties

Surface resistivity

IEC 62631-3-2

d.a.m.

10³ Ω

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