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AKRO COMPOUNDS

Compound No.: **7428**

PRECITE® PRELIMINARY
E ICF 20 black (7428)

PET CF20

PRECITE® E ICF 20 black (7428) is a medium viscosity polyethylene terephthalate (PET) with 20% recycled carbon fiber. Despite lower density compared to PET with glass fiber reinforcement, the product has very high strength and toughness as well as high dimensional stability. The good tribological properties and improved surface finish make it the material of choice for precision components in the automotive, mechanical engineering, E&E and household goods industries.

Features

surface modified | recycled content | reduced density | reduced moisture | tribological modified | E&E | Sports & leisure | lightweight construction

Properties

Modulus	Strength	Impact
17.000 MPa	**180** MPa	**41** kJ/m²

Sustainability

Recycled content	**20 %**

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m.	**17000 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m.	**180 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m.	**2,2 %**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m.	**41 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m.	**7 kJ/m²**

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Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**215 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**250 °C**

Flammability

Flammability UL 94	0,8 mm Wall thickness	**HB Class**

General Properties

Density ISO 1183	23°C	**1,44 g/cm³**
Molding shrinkage ISO 294-4	flow transverse	**0,1 - 0,3 %** **0,6 - 0,8 %**

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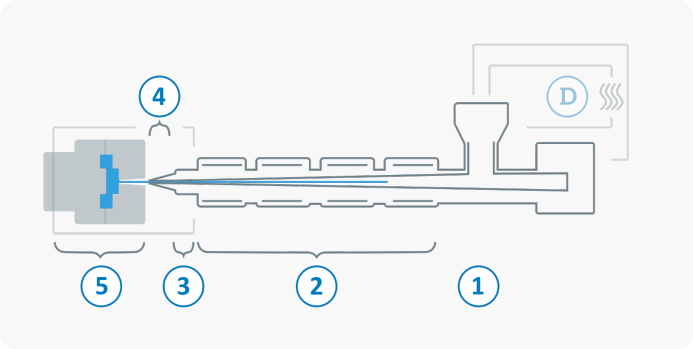
Processing

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

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Diagrams