

Compound No.: 7427

## PRECITE® PRELIMINARY E ICF 15 black (7427)

PET CF15

PRECITE® E ICF 15 black (7427) is a medium viscosity polyethylene terephthalate (PET) with 15% 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.

# surface modified recycled content reduced density reduced moisture tribological modified E&E Sports & leisure lightweight construction Properties Modulus Strength Impact 13.000 MPa 160 MPa 25 kJ/m²

#### **Mechanical Properties**

Tensile modulus ISO 527-2	1 mm/min   d.a.m.	13000 MPa
Tensile stress at break ISO 527-2	5 mm/min   d.a.m.	160 MPa
Tensile strain at break ISO 527-2	5 mm/min   d.a.m.	2,5 %
Charpy impact strength ISO 179-1/1eU	23°C   d.a.m.	25 kJ/m²
Charpy notched impact strength ISO 179-1/1eA	23°C   d.a.m.	4 kJ/m²

#### **Thermal Properties**

Temperature of deflection under load HDT/A	1.8 MPa	204 °C
ISO 75	1,0 WII a	204 C



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Melting temperature	DSC. 10K/min	250 °C
ISO 11357-3	DSC, TOTOTHIT	250 €

### Flammability

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

#### **General Properties**

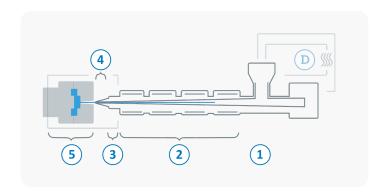
Density ISO 1183	23°C	1,40 g/cm³
Molding shrinkage ISO 294-4	flow transverse	0,1 - 0,3 % 0,6 - 0,8 %





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