

AKROMID® PRELIMINARY

T9 ICF 20 1 black (8864)

PPA CF 20

AKROMID® T9 ICF 20 1 black (8864) is a with 20% recycled carbon fibre reinforced polyphthalamide with high stiffness and strength, as well as high chemical resistance. The compound is based on PA9T and has lower moisture uptake than conventional PA6T variants. This leads to a significantly higher consistency of the glass transition temperature and higher strength at elevated temperatures especially in conditioned state.

Features

heat stabilised 130 recycled content reduced moisture metal substitution Sports & leisure

Properties

Modulus

14.500 MPa

Strength

195 MPa

Impact

40 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

14500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

195 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.

40 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

5 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

270 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

300 °C

Flammability

Flammability

UL 94

1,6 mm Wall thickness

HB Class

General Properties

Density

ISO 1183

23°C

1,22 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

0,1 - 0,3 %

Molding shrinkage

ISO 294-4

flow

0,1 - 0,3 %

transverse

0,5 - 0,7 %

Electrical Properties

Surface resistivity

IEC 62631-3-2

d.a.m.

10² 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	0 - 4 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	120 $^{\circ}\text{C}$
	Processing moisture	<0,05 %
1	Feed section	60 - 90 $^{\circ}\text{C}$
2	Temperature Zone 1 - Zone 4	310 - 340 $^{\circ}\text{C}$
3	Nozzle temperature	320 - 350 $^{\circ}\text{C}$
4	Melt temperature	320 - 340 $^{\circ}\text{C}$
5	Mold temperature	>150 $^{\circ}\text{C}$
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min