

AKROLOY®

PA ICF 20 black (5268)

PA66 + PA6I/6T CF20

AKROLOY® PA ICF 20 black (5268) is a 20% carbon fibre reinforced, semi-aromatic polyamide blend with high stiffness, good sliding properties and reduced moisture.

Properties

Modulus

17.000 MPa

Strength

200 MPa

Impact

45 kJ/m²

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.

200 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

13000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

250 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

2,6 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

45 kJ/m²

-30°C | d.a.m.

35 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

6 kJ/m²

-30°C | d.a.m.

5 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	223 °C
ISO 75		

Melting temperature	DSC, 10K/min	255 °C
ISO 11357-3		

Flammability

Flammability	0,8 mm Wall thickness	HB Class
UL 94		

Burning rate (<100 mm/min)	> 1 mm Thickness	+
FMVSS 302		

General Properties

Density	23°C	1,23 g/cm ³
ISO 1183		

Molding shrinkage	flow	0,2 %
ISO 294-4	transverse	0,6 %

Electrical Properties

Surface resistivity	d.a.m.	10 ⁵ Ω
IEC 62631-3-2		

Rheological Properties

Flowability	2 mm Thickness	440 mm
AKRO		

MVR	275°C/5kg	40 cm ³ /10 min
ISO 1133		

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 ($\tau \leq -30^{\circ}\text{C}$)	80 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	260 - 310 °C
3	Nozzle temperature	270 - 310 °C
4	Melt temperature	280 - 310 °C
5	Mold temperature	90 - 130 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min