

AKROMID®

A3 CF 20 black (3132)

PA66 CF20

AKROMID® A3 CF 20 black (3132) is a 20% carbon fibre reinforced polyamide 6.6 with high flexural strength and good sliding properties

Properties

Modulus

15.000 MPa

Strength

200 MPa

Impact

40 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

15000 MPa

1 mm/min | conditioned

10500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

200 MPa

5 mm/min | conditioned

150 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

> 1,5 %

5 mm/min | conditioned

3 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

14000 MPa

2 mm/min | conditioned

10000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

290 MPa

2 mm/min | conditioned

210 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

2,5 %

2 mm/min | conditioned

3,7 %

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.

5,5 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	254 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	262 °C
Temperature of deflection under load HDT/C ISO 75	8 MPa	223 °C
Melting temperature ISO 11357-3	DSC, 10K/min	262 °C

Flammability

Flammability UL 94	1,6 mm Wall thickness	HB Class
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General Properties

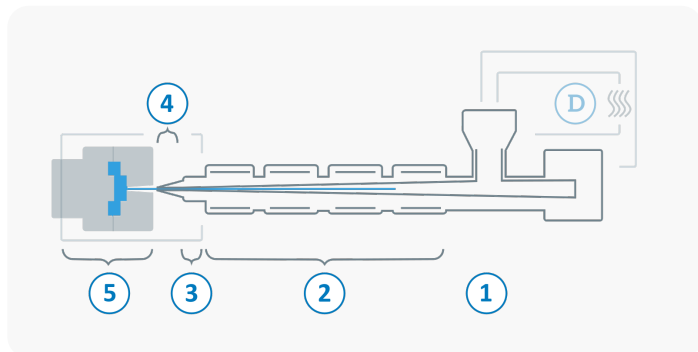
Density ISO 1183	23°C	1,22 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	2,1 %
Molding shrinkage ISO 294-4	flow transverse	0,2 % 0,7 %

Electrical Properties

Volume resistivity IEC 62631-3-1	d.a.m.	10⁶ Ω x cm
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	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	80 - 140 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 -150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min