

AKROMID®

A3 CGM 10/20 4 black (5870)

PA66 (CF10+GF20)

AKROMID® A3 CGM 10/20 4 black (5870) is a 20% glass fiber and 10% carbon fiber reinforced polyamide 6.6. The compound is stabilized against hydrolysis and chemicals and has high stiffness and strength. In addition, it impresses with its electrical conductivity and is therefore ideally suited for applications in the automotive sector, such as fuel filter housings.

Features

hydrolysis / chemically stabilised antistatic/conductive metal substitution lightweight construction

Properties

Modulus

14.500 MPa

Strength

190 MPa

Impact

65 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

14500 MPa

1 mm/min | conditioned

9000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

190 MPa

5 mm/min | conditioned

125 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,2 %

5 mm/min | conditioned

4,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

65 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

10 kJ/m²

Thermal Properties

Melting temperature

ISO 11357-3

DSC, 10K/min

262 °C

Flammability

Flammability UL 94	1,6 mm Wall thickness	HB Class
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

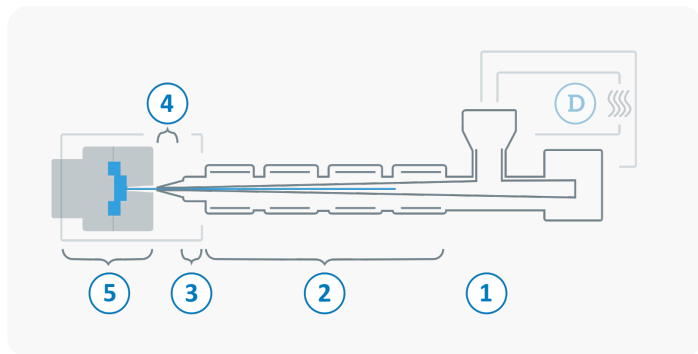
Density ISO 1183	23°C	1,33 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,6 %
Molding shrinkage ISO 294-4	flow	0,1 - 0,3 %
	transverse	0,7 - 0,9 %

Electrical Properties

Surface resistivity IEC 62631-3-2	d.a.m.	10⁵ Ω
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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	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 - 300 °C
3	Nozzle temperature	270 - 310 °C
4	Melt temperature	280 - 300 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min