

AKROMID® PRELIMINARY

A3 GF 30 4 LA black (9005)

PA66 GF30

AKROMID® A3 GF 30 4 LA black (9005) is a 30% glass fiber reinforced polyamide 6.6. It is characterised by high stiffness and strength. Furthermore, the material is hydrolysis and chemically stabilised and therefore perfectly suitable for e.g. cooling systems in the automotive industry.

Features

hydrolysis / chemically stabilised laser markable

Properties

Modulus

10.000 MPa

Strength

190 MPa

Impact

80 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

10000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

190 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,1 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

80 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

253 °C

Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

260 °C

Temperature of deflection under load HDT/C

ISO 75

8 MPa

210 °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	1,36 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,9 - 2,1 %
Water absorption ISO 62	23°C, saturated	4,4 - 1,6 %
Molding shrinkage ISO 294-4	flow transverse	0,1 - 0,3 % 0,7 - 0,9 %

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