

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	Strength	Impact
10.000 MPa	190 MPa	80 kJ/m ²

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/m ²

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

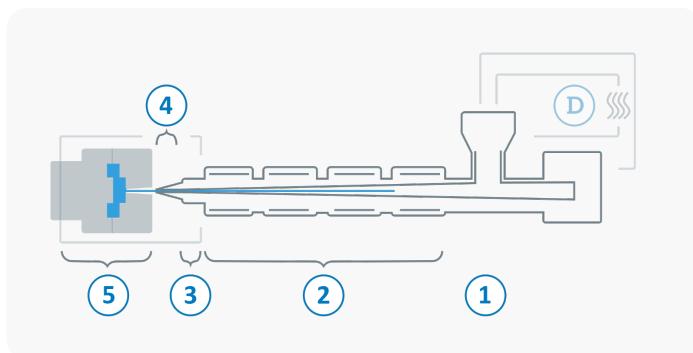
Flammability	1,6 mm Wall thickness	HB Class
UL 94		
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density	23°C	1,36 g/cm ³
ISO 1183		
Humidity absorption	70°C, 62% r.H.	1,9 - 2,1 %
ISO 1110		
Water absorption	23°C, saturated	4,4 - 1,6 %
ISO 62		
Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	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