

AKROMID®

A3 GF 30 S1 black (1365)

PA66-I GF30

AKROMID® A3 GF 30 S1 black (1365) is a 30% glass fiber reinforced, impact modified Polyamide 6.6. It is characterised by high stiffness and strength as well as a higher impact strength compared to a standard PA 6.6 GF 30. The material is perfectly suitable for connecting and fixing systems as well as for precision parts in the automotive industry.

Features

impact modified

Properties

Modulus

9.600 MPa

Strength

180 MPa

Impact

105 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

9600 MPa

1 mm/min | conditioned

8000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

180 MPa

5 mm/min | conditioned

120 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

5 %

5 mm/min | conditioned

6 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

105 kJ/m²

23°C | conditioned

110 kJ/m²

-30°C | d.a.m.

85 kJ/m²

-30°C | conditioned

100 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

17 kJ/m²

23°C | conditioned

20 kJ/m²

-30°C | d.a.m.

12 kJ/m²

-30°C | conditioned

12 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	255 °C
ISO 75		

Melting temperature	DSC, 10K/min	262 °C
ISO 11357-3		

Flammability

Flammability	1,6 mm Wall thickness	HB Class
UL 94		

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

General Properties

Density	23°C	1,34 g/cm ³
ISO 1183		

Humidity absorption	70°C, 62% r.H.	1,7 %
ISO 1110		

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

Diagrams

