

AKROMID®

A3 GF 30 4 6 black (13690)

PA66 GF30

AKROMID® A3 GF 30 4 6 black (13690) is a 30% glass fiber reinforced, high heat stabilised, hydrolysis- and chemical resistant polyamide 6.6 with high stiffness and strength. It is the official DPPD-free successor of formulation 1369. The material can be used for functional parts in the heating and cooling system.

Features

hydrolysis / chemically stabilised

electrically neutral

Properties

Modulus

10.000 MPa

Strength

190 MPa

Impact

85 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

10000 MPa

1 mm/min | conditioned

6700 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

190 MPa

5 mm/min | conditioned

130 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

5 mm/min | conditioned

7 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

9500 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

300 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

85 kJ/m²

23°C | conditioned

95 kJ/m²

-30°C | d.a.m.

75 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

12 kJ/m²

23°C | conditioned

17 kJ/m²

-30°C | d.a.m.

10 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
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

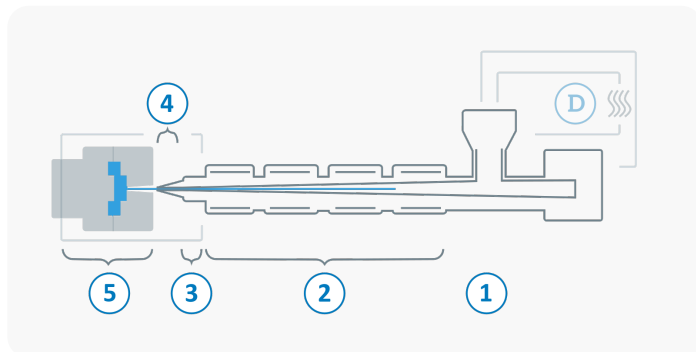
Density ISO 1183	23°C	1,36 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,9 - 2,1 %
Water absorption ISO 62	23°C, saturated	4,5 %
Molding shrinkage ISO 294-4	flow transverse	0,1 - 0,3 % 0,7 - 0,9 %

Electrical Properties

Surface resistivity IEC 62631-3-2	d.a.m.	> 10¹³ 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