

AKROMID®

B3 GF 30 S1 natural (1383)

PA6-I GF30

AKROMID® B3 GF 30 S1 natural (1383) is a 30% glass fiber reinforced, impact modified Polyamide 6. It is characterised by high stiffness and strength as well as a higher impact strength compared to a standard PA 6 GF 30. The material is therefore perfectly suitable for industrial applications and for housings and covers in the automotive industry. The material has a light inherent color.

Features

impact modified

Properties

Modulus

8.000 MPa

Strength

125 MPa

Impact

110 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

8000 MPa

1 mm/min | conditioned

4300 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

125 MPa

5 mm/min | conditioned

85 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

6 %

5 mm/min | conditioned

15 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

6400 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

190 MPa

Charpy impact strength

ISO 179-1/1eU

23°C d.a.m.	110 kJ/m ²
23°C conditioned	135 kJ/m ²
-10°C d.a.m.	112 kJ/m ²
-20°C d.a.m.	117 kJ/m ²
-30°C d.a.m.	117 kJ/m ²
-30°C conditioned	108 kJ/m ²
-40°C d.a.m.	115 kJ/m ²

Charpy notched impact strength

ISO 179-1/1eA

23°C d.a.m.	35 kJ/m ²
23°C conditioned	40 kJ/m ²
-10°C d.a.m.	25 kJ/m ²
-20°C d.a.m.	25 kJ/m ²
-30°C d.a.m.	25 kJ/m ²
-30°C conditioned	22 kJ/m ²
-40°C d.a.m.	20 kJ/m ²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa	200 °C
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Temperature of deflection under load HDT/B

ISO 75

0,45 MPa	220 °C
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Melting temperature

ISO 11357-3

DSC, 10K/min	220 °C
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Vicat softening temperature B50

ISO 306

50°C/50N	203 °C
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Flammability

Flammability

UL 94

1,6 mm Wall thickness	HB Class
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Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness	+
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General Properties

Density

ISO 1183

23°C	1,28 g/cm ³
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Humidity absorption

ISO 1110

70°C, 62% r.H.

1,3 - 1,5 %

Molding shrinkage

ISO 294-4

flow

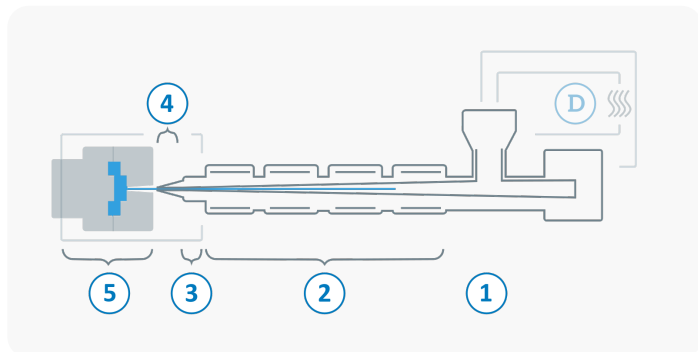
0,1 - 0,3 %

transverse

0,5 - 0,7 %

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	240 - 290 °C
3	Nozzle temperature	260 - 300 °C
4	Melt temperature	270 - 290 °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

