

PA6 – Polyamide 6 PA6-I GF30

AKROMID® B3 GF 30 S1 natural (2165)

Tensile modulus

9000 MPa

1 mm/min

ISO 527-2

Stress at break

160 MPa

5 mm/min

ISO 527-2

Charpy impact strength

100 kJ/m²

23°C

ISO 179-1/1eU

AKROMID® B3 GF 30 S1 natural (2165) is a 30% glass fibre reinforced, cold impact strength polyamide 6 with high stiffness and strength and light inherent color

Typical applications

Housings and covers for the automotive industry and power tools



Mechanical Properties

Tensile modulus (1 mm/min | ISO 527-2)

d.a.m.

9000 MPa

conditioned

5000 MPa

Stress at break (5 mm/min | ISO 527-2)

d.a.m.

160 MPa

conditioned

105 MPa

Strain at break (5 mm/min | ISO 527-2)

d.a.m.

5 %

conditioned

12 %

Flexural modulus (2 mm/min | ISO 178)

d.a.m.

8500 MPa

conditioned

5500 MPa

Flexural strength (2 mm/min | ISO 178)

d.a.m.

265 MPa

conditioned

250 MPa

Flexural strain at break (2 mm/min | ISO 178)

d.a.m.

5 %

conditioned

5,5 %

Charpy impact strength (23°C | ISO 179-1/1eU)

d.a.m.

100 kJ/m²

Charpy impact strength (-30°C | ISO 179-1/1eU)

d.a.m.

100 kJ/m²

conditioned

n.b. kJ/m²

Charpy notched impact strength (23°C | ISO 179-1/1eA)

d.a.m.

25 kJ/m²

Charpy notched impact strength (-30°C | ISO 179-1/1eA)

d.a.m.

20 kJ/m²

conditioned

17 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa | ISO 75)

205 °C

Temperature of deflection under load HDT/B (0,45 MPa | ISO 75)

220 °C

Melt temperature (DSC, 10K/min | DIN EN 11357-1)

222 °C

Temperature index for 50% loss of tensile strength after 20.000h (20.000 Std. | IEC 60216)

115 °C

Disclaimer:

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**Flammability**

Burning rate (UL 94)

1,6mm Wall thickness

HB Class

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

+

**General properties**

Density (23°C | ISO 1183)

1,33 g/cm³

Humidity absorption (70°C, 62% r.H. | ISO 1110)

1,8 %

Disclaimer:

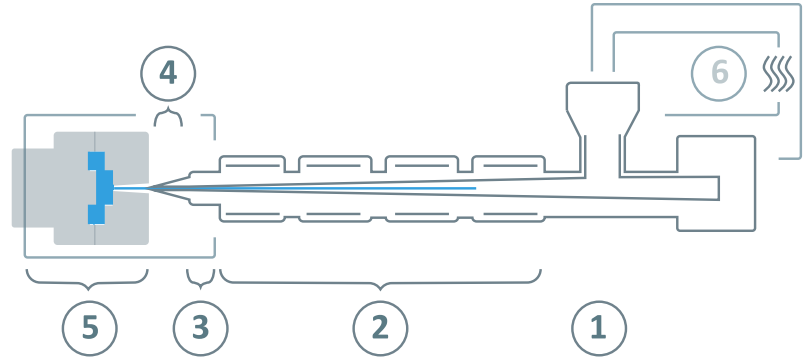
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Processing information

The listed values are recommendations. Higher values should be used for higher glass loadings. We recommend only dehumidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.



⑥	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

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