

PA6 – Polyamide 6 PA6 GF50

AKROMID® B28 GF 50 9 natural (6570)

Tensile modulus

17000 MPa

1 mm/min

ISO 527-2

Stress at break

250 MPa

5 mm/min

ISO 527-2

Charpy impact strength

115 kJ/m²

23°C

ISO 179-1/1eU

AKROMID® B28 GF 50 9 natural (6570) is a 50% glass fibre reinforced, easy flowing polyamide 6 with very high stiffness and strength and improved mold release

Typical applications

Mainly components in mechanical engineering and the automotive industry demanding a very good surface

**Mechanical Properties**

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

d.a.m.

17000 MPa

conditioned

10500 MPa

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

d.a.m.

250 MPa

conditioned

150 MPa

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

d.a.m.

2,8 %

conditioned

4,5 %

Flexural modulus (2 mm/min | ISO 178)

d.a.m.

15000 MPa

Flexural strength (2 mm/min | ISO 178)

d.a.m.

350 MPa

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

d.a.m.

115 kJ/m²

conditioned

120 kJ/m²

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

d.a.m.

100 kJ/m²

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

d.a.m.

22 kJ/m²

conditioned

26 kJ/m²

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

d.a.m.

16 kJ/m²**Thermal Properties**

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

220 °C

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

220 °C

Temperature of deflection under load HDT/C (8 MPa | ISO 75)

185 °C

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

220 °C

Temperature index for 50% loss of tensile strength after 5.000h (5.000 h | IEC 60216)

160 °C

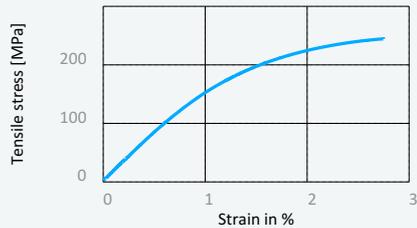
Temperature index for 50% loss of tensile strength after 20.000h (20.000 Std. | IEC 60216)

130 °C

Disclaimer:

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Stress strain chart at 23°C

**Flammability**

Burning rate (UL 94)
0,8mm Wall thickness

HB Class

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

+

**General properties**

Density (23°C | ISO 1183)

1,56 g/cm³

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

1,3 - 1,6 %

Water absorption 23°C saturated (23°C, saturated | ISO 62)

4,5 - 5,1 %

Molding shrinkage (flow | ISO 294-4)

0,1 - 0,3 %

Molding shrinkage (transverse | ISO 294-4)

0,4 - 0,6 %

**Electrical Properties**

Volume resistivity (IEC 60093)

d.a.m.
conditioned

1,0E+13 Ohm x cm
1,0E+10 Ohm x cm

Surface resistivity (acc. to IEC 60093)

d.a.m.
conditioned

1,0E+12 Ohm
1,0E+10 Ohm

Comparative tracking index (Test liquid A | IEC 60112)

600 V

**Rheological Properties**

Flowability (2mm Thickness | AKRO)

540 mm

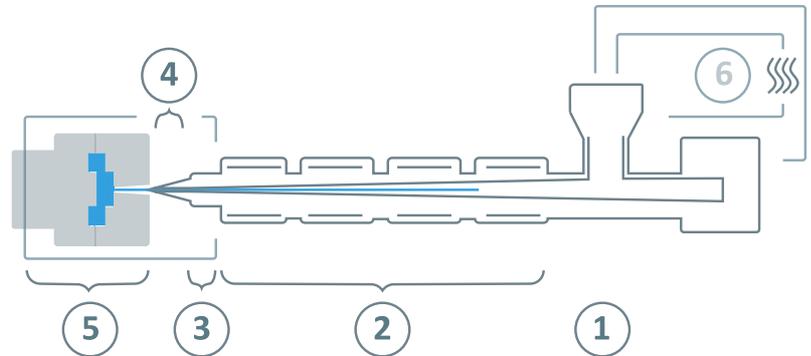
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AKROMID® B28 GF 50 9 natural (6570)**Processing information**

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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