

AKROMID®

B28 GF 50 9 natural (6570)

PA6 GF50

AKROMID® B28 GF 50 9 natural (6570) is a 50% glass fiber reinforced polyamide 6. It is characterised by an improved flowability and mold release compared to a standard PA 6 GF 50. Furthermore, the material impresses with its high stiffness and strength. It is therefore perfectly suitable for technical applications in industrial engineering, furniture industry and in the automotive industry.

Features

easy flow

Properties

Modulus

17.000 MPa

Strength

250 MPa

Impact

115 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17000 MPa

1 mm/min | conditioned

10500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

250 MPa

5 mm/min | conditioned

150 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,8 %

5 mm/min | conditioned

4,5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

15000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

350 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

115 kJ/m²

23°C | conditioned

120 kJ/m²

-30°C | d.a.m.

100 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

22 kJ/m²

23°C | conditioned

26 kJ/m²

-30°C | d.a.m.

16 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

220 °C

Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

220 °C

Temperature of deflection under load HDT/C

ISO 75

8 MPa

185 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

Temperature index for 50% loss of tensile strength

IEC 60216

5.000 h

160 °C

20.000 h

130 °C

Flammability

Flammability

UL 94

0,8 mm Wall thickness

HB Class

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,56 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

1,3 - 1,6 %

Water absorption

ISO 62

23°C, saturated

4,5 - 5,1 %

Molding shrinkage

ISO 294-4

flow

0,1 - 0,3 %

transverse

0,4 - 0,6 %

Electrical Properties

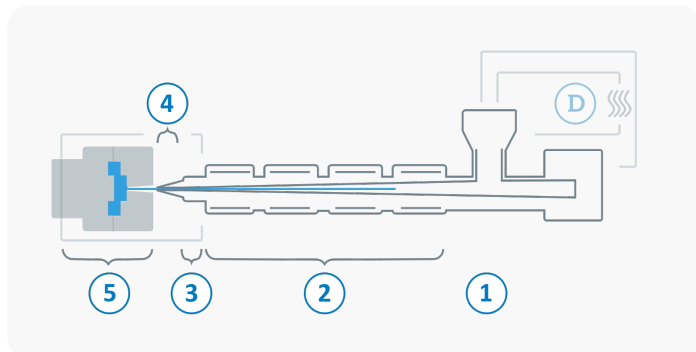
Volume resistivity	d.a.m.	$10^{13} \Omega \times \text{cm}$
IEC 62631-3-1	conditioned	$10^{10} \Omega \times \text{cm}$
Surface resistivity	d.a.m.	$10^{12} \Omega$
IEC 62631-3-2	conditioned	$10^{10} \Omega$
Comparative tracking index	Test liquid A	600 V
IEC 60112		

Rheological Properties

Flowability	2 mm Thickness	540 mm
AKRO		

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

