

AKROMID®

B28 GF 50 natural (4842)

PA6 GF50

AKROMID® B28 GF 50 natural (4842) - is a 50% glass fiber reinforced polyamide 6. It is characterised by an improved flowability 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, in the furniture industry and in the automotive industry.

Features

easy flow

Properties

Modulus

16.500 MPa

Strength

250 MPa

Impact

110 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

16500 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

145 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3 %

5 mm/min | conditioned

4,5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

15000 MPa

2 mm/min | conditioned

10500 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

350 MPa

2 mm/min | conditioned

240 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

110 kJ/m²

23°C | conditioned

120 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

23 kJ/m²

23°C | conditioned

26 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

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/cm ³
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 transverse	0,1 - 0,3 % 0,4 - 0,6 %

Electrical Properties

Volume resistivity IEC 62631-3-1	d.a.m. conditioned	10 ¹³ Ω x cm 10 ¹⁰ Ω x cm
Surface resistivity IEC 62631-3-2	d.a.m. conditioned	10 ¹² Ω 10 ¹⁰ Ω

Comparative tracking index

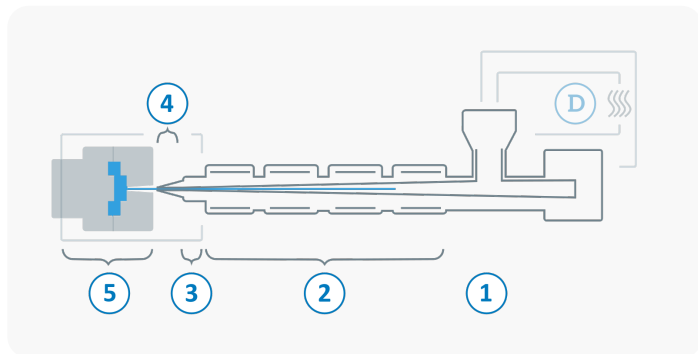
IEC 60112

Test liquid A

600 V

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