

AKROMID®

B3 GF 30 natural (2472)

PA6 GF30

AKROMID® B3 GF 30 natural (2472) is a 30% glass fiber reinforced polyamide 6. It is characterised by a high stiffness and strength. The material is therefore perfectly suitable for technical parts in industrial engineering and in the automotive industry. It has a light inherent color.

Properties

Modulus

10.300 MPa

Strength

185 MPa

Impact

95 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

10300 MPa

1 mm/min | conditioned

6200 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

185 MPa

5 mm/min | conditioned

110 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3 %

5 mm/min | conditioned

6,1 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

8500 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

270 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

95 kJ/m²

23°C | conditioned

105 kJ/m²

-30°C | d.a.m.

85 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

13 kJ/m²

23°C | conditioned

18 kJ/m²

-30°C | d.a.m.

12 kJ/m²

Ball indentation hardness

ISO 2039-1

961N/30s | d.a.m.

230 MPa

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	210 °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	150 °C
Melting temperature ISO 11357-3	DSC, 10K/min	220 °C
Coefficient of linear thermal expansion ISO 11359-1/2	23°C to 80°C parallel	0,16 10⁻⁴/K
	23°C to 80°C transverse	0,95 10⁻⁴/K
Temperature index for 50% loss of tensile strength IEC 60216	5.000 h	160 - 175 °C
	20.000 h	130 - 150 °C

Flammability

Flammability UL 94	1,6 mm Wall thickness	HB Class
GWFI IEC 60695-2-12	1,6 mm Wall thickness	650 °C
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	1,36 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	2,1 - 2,3 %
Water absorption ISO 62	23°C, saturated	6,3 - 6,9 %
Molding shrinkage ISO 294-4	flow	0,1 - 0,3 %
	transverse	0,5 - 0,7 %

Electrical Properties

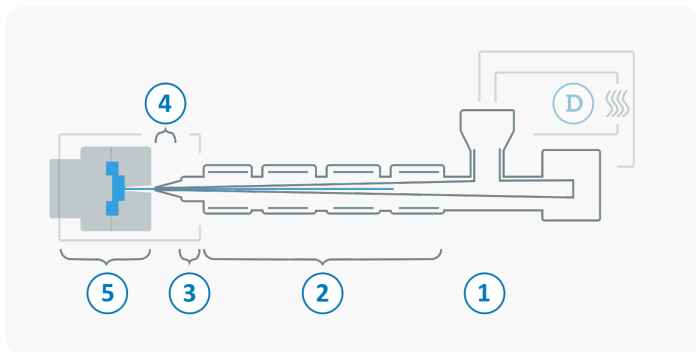
Volume resistivity	d.a.m.	$10^{13} \Omega \times \text{cm}$
IEC 62631-3-1	conditioned	$10^{10} \Omega \times \text{cm}$
Surface resistivity	d.a.m.	$10^{12} \Omega$
IEC 62631-3-2	conditioned	$10^{10} \Omega$
Comparative tracking index	Test liquid A	600 V
IEC 60112		

Rheological Properties

Flowability	2 mm Thickness	480 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

