

AKROMID®

B3 GF 30 RM-M natural (3291)

PA6 + X GF30

AKROMID® B3 GF 30 RM-M natural (3291) is a 30% glass fiber reinforced polyamide 6 with high stiffness and strength. The material is characterised by a lower moisture uptake compared to standard PA 6 GF 30 compounds which results in less mechanical changes in the conditioned state. It is therefore perfectly suitable for components where high dimensional stability is required, e.g. in sports and leisure. The material has a light inherent color.

Features

reduced moisture

Properties

Modulus

11.000 MPa

Strength

165 MPa

Impact

70 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

11000 MPa

1 mm/min | conditioned

7100 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

165 MPa

5 mm/min | conditioned

110 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,6 %

5 mm/min | conditioned

4,5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

9600 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

250 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

3,2 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

70 kJ/m²

23°C | conditioned

70 kJ/m²

-30°C | d.a.m.

65 kJ/m²

-30°C | conditioned

60 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

12 kJ/m²

23°C | conditioned

15 kJ/m²

-30°C | d.a.m.

10 kJ/m²

-30°C | conditioned

10 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/C

ISO 75

8 MPa

160 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

225 °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

1,41 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

1,65 %

Molding shrinkage

ISO 294-4

flow

0,1 - 0,3 %

transverse

0,5 - 0,7 %

Electrical Properties

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	220 - 280 °C
3	Nozzle temperature	240 - 290 °C
4	Melt temperature	240 - 280 °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