

AKROMID®

B3 GF 30 1 L black (4365)

PA6+PP GF30

AKROMID® B3 GF 30 1 L black (4365) is a PA6/PP-blend with reduced density compared to standard PA6 with 30% glass fibre reinforcement. The material is suitable for components with high strength and stiffness where cost and weight reduction are required at the same time. The chemical resistance of AKROMID® B3 GF 30 1 L black (4365) is particularly superior to calcium chloride (CaCl₂).

Features

heat stabilised 130 reduced density

Properties

Modulus

8.800 MPa

Strength

140 MPa

Impact

60 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

8800 MPa

1 mm/min | conditioned

6800 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

140 MPa

5 mm/min | conditioned

105 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.

8800 MPa

2 mm/min | conditioned

6200 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

215 MPa

2 mm/min | conditioned

155 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

3,2 %

2 mm/min | conditioned

4,4 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

60 kJ/m²

23°C | conditioned

67 kJ/m²

-30°C | d.a.m.

50 kJ/m²

-30°C | conditioned

55 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

15 kJ/m²

23°C | conditioned

16 kJ/m²

-30°C | d.a.m.

13 kJ/m²

-30°C | conditioned

13 kJ/m²

Ball indentation hardness

ISO 2039-1

358N/30s | d.a.m.

170 MPa

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

200 °C

Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

217 °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

0,17 10⁻⁴/K

23°C to 80°C | transverse

1,33 10⁻⁴/K

Flammability

Flammability

UL 94

0,8 mm Wall thickness

HB Class

GWFI

IEC 60695-2-12

0,8 mm Wall thickness

650 °C

GWIT

IEC 60695-2-13

0,8 mm Wall thickness

675 °C

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density ISO 1183	23°C	1,26 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,3 - 1,5 %
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
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Rheological Properties

MVR ISO 1133	275°C/5kg	18 cm³/10 min
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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 - 290 °C
(3) Nozzle temperature	240 - 300 °C
(4) Melt temperature	240 - 290 °C
(5) Mold temperature	70 - 100 °C
(→) Holding pressure, spec.	300 - 800 bar
(←) Back pressure, spec.	50 - 150 bar
Injection speed	medium to high
Screw speed	5 - 15 m/min

Diagrams

