

AKROMID®

B3 GF 15 1 L black (4670)

PA6+PP GF15

AKROMID® B3 GF 15 1 L black (4670) is a PA6/PP-blend with reduced density compared to standard PA6 with 15% glass fibre reinforcement. The material is suitable for components with average strength and stiffness where cost and weight reduction are required at the same time. The chemical resistance of AKROMID® B3 GF 15 1 L black (4670) is particularly superior to calcium chloride (CaCl₂).

Features

heat stabilised 130 reduced density

Properties

Modulus

5.200 MPa

Strength

105 MPa

Impact

51 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

5200 MPa

1 mm/min | conditioned

3700 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

105 MPa

5 mm/min | conditioned

65 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,3 %

5 mm/min | conditioned

5,3 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

51 kJ/m²

23°C | conditioned

55 kJ/m²

-30°C | d.a.m.

49 kJ/m²

-30°C | conditioned

50 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

10 kJ/m²

23°C | conditioned

12 kJ/m²

-30°C | d.a.m.

6 kJ/m²

-30°C | conditioned

6 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	192 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	215 °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 23°C to 80°C transverse	0,27 10⁻⁴/K 1,42 10⁻⁴/K

Flammability

Flammability UL 94	0,8 mm Wall thickness	HB Class
GWFI IEC 60695-2-12	0,8 mm Wall thickness	700 °C
GWIT IEC 60695-2-13	0,8 mm Wall thickness	725 °C
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

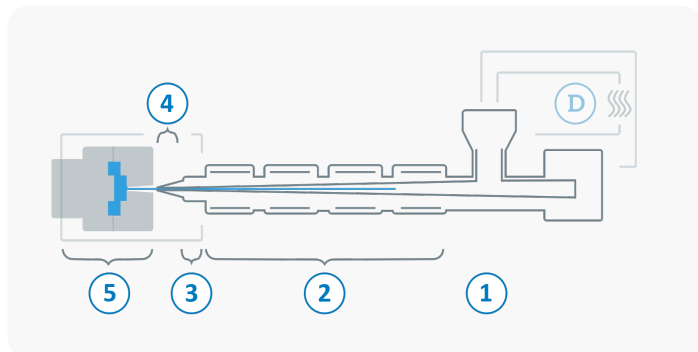
Density ISO 1183	23°C	1,14 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,7 %
Molding shrinkage ISO 294-4	flow transverse	0,3 - 0,5 % 0,7 - 0,9 %

Rheological Properties

MVR ISO 1133	275°C/5kg	15 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