

AKROMID®

B3 GF 25 1 L black (4637)

PA6+PP GF25

AKROMID® B3 GF 25 1 L black (4637) is a PA6/PP-blend with reduced density compared to standard PA6 with 25% 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 25 1 L black (4637) is particularly superior to calcium chloride (CaCl₂).

Features

heat stabilised 130 reduced density

Properties

Modulus

7.500 MPa

Strength

135 MPa

Impact

60 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

7500 MPa

1 mm/min | conditioned

5600 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

135 MPa

5 mm/min | conditioned

88 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,3 %

5 mm/min | conditioned

4,5 %

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.

55 kJ/m²

-30°C | conditioned

54 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

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	198 °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

Flammability

Flammability UL 94	0,8 mm Wall thickness	HB Class
GWFI IEC 60695-2-12	0,8 mm Wall thickness	750 °C
	1,6 mm Wall thickness	725 °C
	3,2 mm Wall thickness	750 °C
GWIT IEC 60695-2-13	0,8 mm Wall thickness	775 °C
	1,6 mm Wall thickness	750 °C
	3,2 mm Wall thickness	775 °C
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

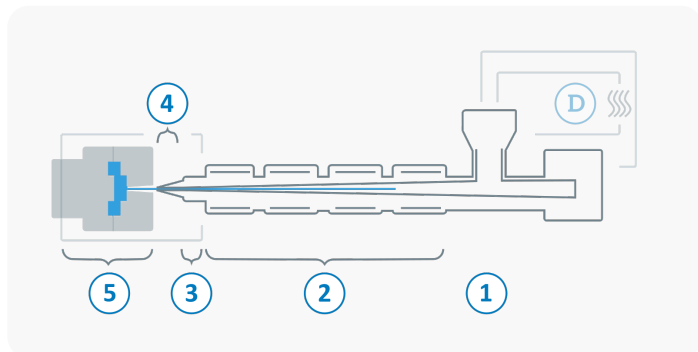
Density ISO 1183	23°C	1,22 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,5 %
Molding shrinkage ISO 294-4	flow	0,1 - 0,3 %
	transverse	0,55 - 0,75 %

Rheological Properties

MVR ISO 1133	275°C/5kg	10 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

