

AKROMID®

A3 GF 40 1 L black (4671)

PA66+PP GF40

AKROMID® A3 GF 40 1 L black (4671) is a PA6.6-PP-blend with reduced density compared to standard PA66 GF 30. 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® A3 GF 40 1 L black (4671) is particularly superior to zinc chloride (ZnCl₂).

Features

heat stabilised 130 reduced density

Properties

Modulus

11.800 MPa

Strength

170 MPa

Impact

80 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

11800 MPa

1 mm/min | conditioned

8600 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

170 MPa

5 mm/min | conditioned

130 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,9 %

5 mm/min | conditioned

3,8 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

11400 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

240 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

80 kJ/m²

23°C | conditioned

73 kJ/m²

-30°C | d.a.m.

73 kJ/m²

-30°C | conditioned

68 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

17 kJ/m²

23°C | conditioned

17 kJ/m²

-30°C | d.a.m.

17 kJ/m²

-30°C | conditioned

16 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

245 °C

Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

260 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

262 °C

Flammability

Flammability

UL 94

0,8 mm Wall thickness

HB Class

GWFI

IEC 60695-2-12

0,8 mm Wall thickness

750 °C

GWIT

IEC 60695-2-13

0,8 mm Wall thickness

775 °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.

0,9 - 1,1 %

Molding shrinkage

ISO 294-4

flow

0,4 - 0,6 %

transverse

0,9 - 1,1 %

Rheological Properties

MVR

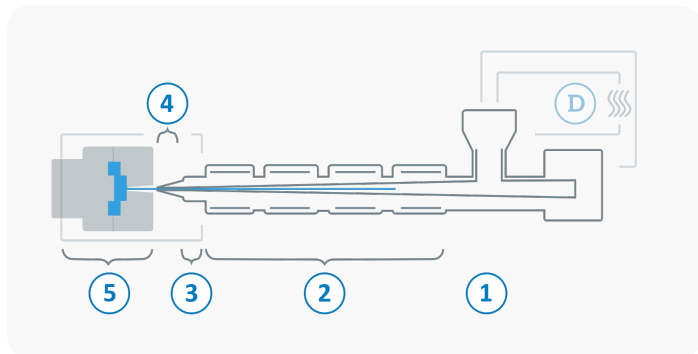
ISO 1133

275°C/5kg

4 cm³/10 min

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	260 - 300 °C
3	Nozzle temperature	270 - 300 °C
4	Melt temperature	270 - 300 °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

