

AKROMID® PRELIMINARY B3 GF 30 5 black (8536)

PA6 GF30

AKROMID® B3 GF 30 5 black (8536) is a 30% glass fiber reinforced polyamide 6. It is characterized by high rigidity and strength. This grade was developed as a successor of AKROMID® B3 GF 30 5 black (7285) to meet the stringent UV stability requirements for outdoor applications. In addition, the material is stabilized at high temperatures and is therefore ideally suited for technical components in mechanical engineering, the automotive and agricultural industries.

Features

heat stabilised 160 UV-stabilised

Properties

Modulus

9.500 MPa

Strength

170 MPa

Impact

60 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

9500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

170 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

60 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

10 kJ/m²

Thermal Properties

Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

Flammability

Flammability UL 94	1,6 mm Wall thickness	HB Class
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	1,35 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	2,1 - 2,3 %
Water absorption ISO 62	23°C, saturated	6,3 - 6,9 %
Molding shrinkage ISO 294-4	flow transverse	0,1 - 0,3 % 0,5 - 0,7 %

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	240 - 290 °C
(3) Nozzle temperature	260 - 300 °C
(4) Melt temperature	270 - 290 °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