

AKROMID®

B3 GF 50 2 S1 black (3050)

PA6-I GF50

AKROMID® B3 GF 50 2 S1 black (3050) is a 50% glass fiber reinforced, impact modified Polyamide 6. It is characterised by very high stiffness and strength as well as a higher notched impact strength compared to a standard PA 6 GF 50. Furthermore, it is UV stabilised. The material is therefore perfectly suitable for industrial applications and for housings and covers in the automotive industry.

Features

UV-stabilised

impact modified

Properties

Modulus

15.000 MPa

Strength

195 MPa

Impact

110 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

15000 MPa

1 mm/min | conditioned

7800 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

195 MPa

5 mm/min | conditioned

120 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

4 %

5 mm/min | conditioned

8 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

110 kJ/m²

23°C | conditioned

> 110 kJ/m²

-30°C | d.a.m.

105 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

27 kJ/m²

23°C | conditioned

40 kJ/m²

-30°C | d.a.m.

20 kJ/m²

-30°C | conditioned

20 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	210 °C
ISO 75		

Melting temperature	DSC, 10K/min	220 °C
ISO 11357-3		

Flammability

Flammability	1,6 mm Wall thickness	HB Class
UL 94		

Burning rate (<100 mm/min)	> 1 mm Thickness	+
FMVSS 302		

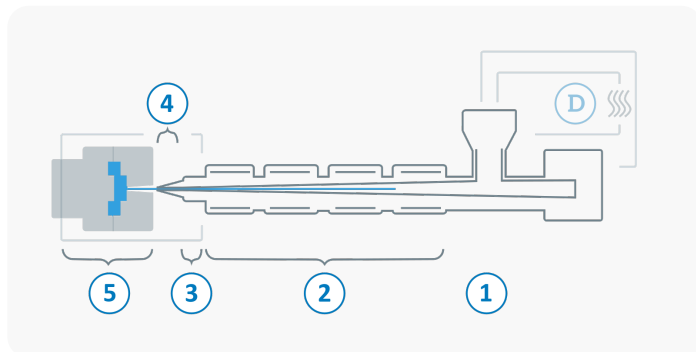
General Properties

Density	23°C	1,54 g/cm³
ISO 1183		

Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,4 - 0,6 %

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