

AKROMID®

B3 GF 40 S1 LA black (7614)

PA6-I GF40

AKROMID® B3 GF 40 S1 LA black (7614) is a 40% glass fiber reinforced, impact modified Polyamide 6. It is characterised by a medium impact strength as well as a high stiffness and strength. Furthermore, the material impresses with its laser markability along with very good surface properties and is therefore perfectly suitable for housings and covers in the automotive industry with high demands on the surface.

Features

impact modified laser markable surface modified

Properties

Modulus

12.000 MPa

Strength

185 MPa

Impact

100 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

12000 MPa

1 mm/min | conditioned

8000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

185 MPa

5 mm/min | conditioned

145 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,8 %

5 mm/min | conditioned

6 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

100 kJ/m²

23°C | conditioned

100 kJ/m²

-30°C | d.a.m.

100 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

18 kJ/m²

23°C | conditioned

23 kJ/m²

-30°C | d.a.m.

15 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	205 °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	1,42 g/cm ³
ISO 1183		

Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,5 - 0,7 %

Electrical Properties

Comparative tracking index	Test liquid A	575 V
IEC 60112		

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

Diagrams

