

# AKROMID® B3 GF 30 S1 LA black (4446)

PA6-I GF30

AKROMID® B3 GF 30 S1 LA black (4446) is a 30% 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 and is perfectly suitable for housings and covers in the automotive industry.

## Features

impact modified    laser markable

## Properties



## Mechanical Properties

<b>Tensile modulus</b> ISO 527-2	1 mm/min   d.a.m.	<b>8400 MPa</b>
<b>Tensile stress at break</b> ISO 527-2	5 mm/min   d.a.m.	<b>150 MPa</b>
<b>Tensile strain at break</b> ISO 527-2	5 mm/min   d.a.m.	<b>5 %</b>
<b>Flexural modulus</b> ISO 178	2 mm/min   d.a.m.	<b>8000 MPa</b>
<b>Flexural strength</b> ISO 178	2 mm/min   d.a.m.	<b>250 MPa</b>
<b>Flexural strain at break</b> ISO 178	2 mm/min   d.a.m.	<b>4,8 %</b>
<b>Charpy impact strength</b> ISO 179-1/1eU	23°C   d.a.m. -30°C   d.a.m.	<b>110 kJ/m<sup>2</sup></b> <b>110 kJ/m<sup>2</sup></b>
<b>Charpy notched impact strength</b> ISO 179-1/1eA	23°C   d.a.m. -30°C   d.a.m.	<b>25 kJ/m<sup>2</sup></b> <b>15 kJ/m<sup>2</sup></b>

## Thermal Properties

<b>Temperature of deflection under load HDT/A</b> ISO 75	1,8 MPa	<b>205 °C</b>
<b>Temperature of deflection under load HDT/C</b> ISO 75	8 MPa	<b>145 °C</b>
<b>Melting temperature</b> ISO 11357-3	DSC, 10K/min	<b>222 °C</b>

## Flammability

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

## General Properties

<b>Density</b> ISO 1183	23°C	<b>1,33 g/cm<sup>3</sup></b>
<b>Humidity absorption</b> ISO 1110	70°C, 62% r.H.	<b>1,3 - 1,5 %</b>
<b>Molding shrinkage</b> ISO 294-4	flow	<b>0,1 - 0,3 %</b>
	transverse	<b>0,5 - 0,7 %</b>

## 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.



<b>D</b>	Drying time	0 - 4 h
	Drying temperature ( $\tau \leq -30^{\circ}\text{C}$ )	80 °C
	Processing moisture	0,02 - 0,1 %
<b>1</b>	Feed section	60 - 80 °C
<b>2</b>	Temperature Zone 1 - Zone 4	240 - 290 °C
<b>3</b>	Nozzle temperature	260 - 300 °C
<b>4</b>	Melt temperature	270 - 290 °C
<b>5</b>	Mold temperature	80 - 100 °C
<b>→</b>	Holding pressure, spec.	300 - 800 bar
<b>←</b>	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min