

# AKROMID®

## B3 GF 50 S1 black (2000)

PA6-I GF50

AKROMID® B3 GF 50 S1 black 950089 (2000) 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. The material is therefore perfectly suitable for industrial applications and for housings and covers in the automotive industry.

### Features

impact modified

### Properties

#### Modulus

15.000 MPa

#### Strength

190 MPa

#### Impact

100 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.

190 MPa

5 mm/min | conditioned

120 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

5 %

5 mm/min | conditioned

8 %

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

100 kJ/m²

23°C | conditioned

> 110 kJ/m²

-30°C | d.a.m.

100 kJ/m²

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

25 kJ/m²

23°C | conditioned

40 kJ/m²

-30°C | d.a.m.

20 kJ/m²

-30°C | conditioned

20 kJ/m²

## Thermal Properties

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

<b>Melting temperature</b>	DSC, 10K/min	<b>222 °C</b>
ISO 11357-3		

## Flammability

<b>Flammability</b>	1,6 mm Wall thickness	<b>HB Class</b>
UL 94		

<b>Burning rate (&lt;100 mm/min)</b>	> 1 mm Thickness	<b>+</b>
FMVSS 302		

## General Properties

<b>Density</b>	23°C	<b>1,54 g/cm<sup>3</sup></b>
ISO 1183		

<b>Humidity absorption</b>	70°C, 62% r.H.	<b>1,3 %</b>
ISO 1110		

<b>Molding shrinkage</b>	flow	<b>0,1 - 0,3 %</b>
ISO 294-4	transverse	<b>0,4 - 0,6 %</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

## Diagrams

