

# AKROMID®

## B3 GF 40 1 black (8353)

PRELIMINARY

PA6 GF40

AKROMID® B3 GF 40 1 black (8353) is a 40% glass fiber reinforced polyamide 6 which is characterised by excellent bonding to LSR (liquid silicone rubber). Furthermore, the material shows high stiffness and strength. On top of that, it is heat stabilised and low in emissions and therefore perfectly suitable for technical applications in industrial engineering and in the automotive industry, such as airbag applications.

### Features

heat stabilised 130    adhesion modified

### Properties

Modulus

13.000 MPa

Strength

195 MPa

Impact

100 kJ/m<sup>2</sup>

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

13000 MPa

1 mm/min | conditioned

8300 MPa

### Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

195 MPa

5 mm/min | conditioned

130 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

### Flexural modulus

ISO 178

2 mm/min | d.a.m.

12259 MPa

### Flexural strength

ISO 178

2 mm/min | d.a.m.

305 MPa

### Flexural strain at break

ISO 178

2 mm/min | d.a.m.

3,7 %

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

100 kJ/m<sup>2</sup>

23°C | conditioned

115 kJ/m<sup>2</sup>

-30°C | d.a.m.

85 kJ/m<sup>2</sup>

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

16 kJ/m<sup>2</sup>

23°C | conditioned

23 kJ/m<sup>2</sup>

-30°C | d.a.m.

12 kJ/m<sup>2</sup>

## Thermal Properties

### Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

## Flammability

### Flammability

UL 94

0,8 mm Wall thickness

HB Class

## General Properties

### Density

ISO 1183

23°C

1,46 g/cm<sup>3</sup>

### Humidity absorption

ISO 1110

70°C, 62% r.H.

1,8 %

### Molding shrinkage

ISO 294-4

flow

0,1 - 0,3 %

transverse

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.



<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