

# AKROMID® A3 GF 35 1 HU black (8417)

PA66 GF35

AKROMID® A3 GF 35 1 HU black (8417) is a 35% glass fibre reinforced, heat ageing resistant polyamide 6.6 with high rigidity and strength. The material is colored in black and has a very good flowability. This UL94 HB listed grade is suitable for technical components in mechanical engineering and the automotive industry.

## Features

heat stabilised 130    easy flow    E&E

## Regulatory



## Properties

### Modulus

12.000 MPa

### Strength

215 MPa

### Impact

75 kJ/m<sup>2</sup>

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

12000 MPa

1 mm/min | conditioned

9000 MPa

### Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

215 MPa

5 mm/min | conditioned

145 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3 %

5 mm/min | conditioned

4,6 %

### Flexural modulus

ISO 178

2 mm/min | d.a.m.

11000 MPa

### Flexural strength

ISO 178

2 mm/min | d.a.m.

300 MPa

### Flexural strain at break

ISO 178

2 mm/min | d.a.m.

3,3 %

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

75 kJ/m<sup>2</sup>

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

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

## Thermal Properties

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<b>Melting temperature</b> ISO 11357-3	DSC, 10K/min	<b>262 °C</b>
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## Flammability

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<b>Flammability</b> UL 94	<b>UL</b> 0,8 mm Wall thickness	<b>HB Class</b>
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## General Properties

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<b>Density</b> ISO 1183	23°C	<b>1,4 g/cm<sup>3</sup></b>
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<b>Humidity absorption</b> ISO 1110	70°C, 62% r.H.	<b>1,8 - 2,0 %</b>
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<b>Molding shrinkage</b> ISO 294-4	flow	<b>0,1 - 0,3 %</b>
	transverse	<b>0,6 - 0,8 %</b>

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## Electrical Properties

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<b>Comparative tracking index</b> IEC 60112	<b>UL</b> Test liquid A	<b>600 V</b>
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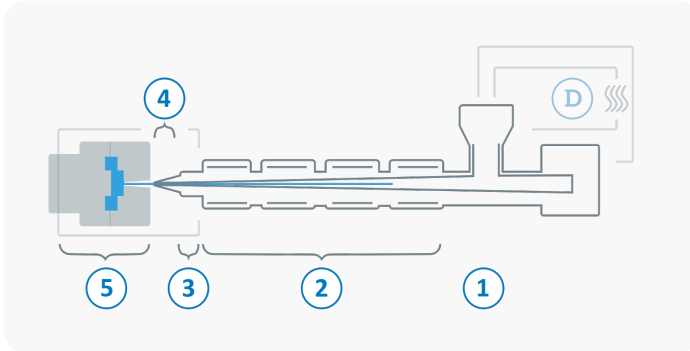
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<b>Comparative tracking index</b> ASTM D3638	<b>UL</b>	<b>0 PLC</b>
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## Processing

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	260 - 300 °C
<b>3</b>	Nozzle temperature	270 - 310 °C
<b>4</b>	Melt temperature	280 - 300 °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

