

# AKROMID® PRELIMINARY

## B3 ICF 10 AM black (8336)

PA6 CF10

AKROMID® B3 ICF 10 AM black (8336) is a Polyamide 6 with 10% carbon fiber reinforcement, offering high stiffness and flexural strength. Compared to glass fiber-reinforced PA 6, it provides an optimized strength-to-weight ratio. It is suitable for a stable additive manufacturing process (3D Printing) at fast production speeds and available in granule size lower than 1.5 mm diameter which allows the use of dosing systems with smaller screws. Thanks to its low density and high mechanical durability, this material is ideal for load-bearing components in the automotive industry, such as lightweight structural parts, as well as for sports and leisure applications, including high-stress sports equipment and technical components.

### Features

recycled content   reduced density   3D printing / additive manufacturing   Sports & leisure   lightweight construction

### Properties

Modulus

8.000 MPa

Strength

120 MPa

Impact

45 kJ/m<sup>2</sup>

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

8000 MPa

### Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

120 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,2 %

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

45 kJ/m<sup>2</sup>

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

4 kJ/m<sup>2</sup>

## Thermal Properties

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<b>Melting temperature</b>	DSC, 10K/min	<b>220 °C</b>
ISO 11357-3		

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## Flammability

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

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

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## General Properties

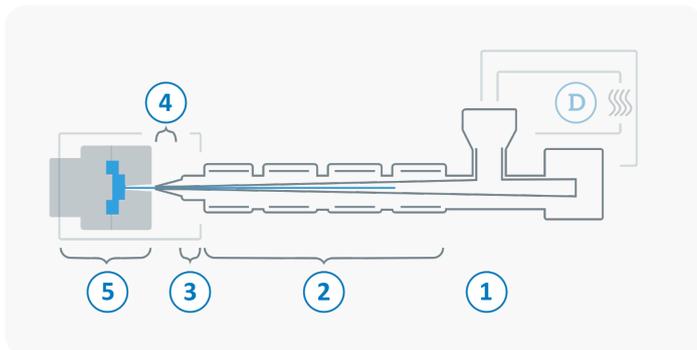
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<b>Density</b>	23°C	<b>1,17 g/cm<sup>3</sup></b>
ISO 1183		

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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	240 - 300 °C
<b>3</b>	Nozzle temperature	270 - 300 °C
<b>4</b>	Melt temperature	270 - 300 °C
<b>5</b>	Mold temperature	80 - 130 °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