

PA6 – Polyamide 6 PA6 CF40

AKROMID® B3 ICF 40 AM black (8236)

Tensile modulus

27000 MPa

1 mm/min

ISO 527-2

Stress at break

210 MPa

5 mm/min

ISO 527-2

Charpy impact strength

45 kJ/m²

23°C

ISO 179-1/1eU

AKROMID® B3 ICF 40 AM black (8236) is a 40% carbon fibre reinforced polyamide 6 with high flexural strength and good sliding properties. It is suitable for a stable additive manufacturing process (3D Printing) at fast production speeds.

Typical applications

Mechanically high stressed parts in all industries, additive manufacturing

**Mechanical Properties**

Tensile modulus (1 mm/min ISO 527-2) d.a.m.	27000 MPa
Stress at break (5 mm/min ISO 527-2) d.a.m.	210 MPa
Strain at break (5 mm/min ISO 527-2) d.a.m.	1,4 %
Charpy impact strength (23°C ISO 179-1/1eU) d.a.m.	45 kJ/m ²
Charpy notched impact strength (23°C ISO 179-1/1eA) d.a.m.	8 kJ/m ²

**Thermal Properties**

Melting temperature (DSC, 10K/min DIN EN ISO 11357-3) d.a.m.	220 °C
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**Flammability**

Burning rate (UL 94) 1,6mm Wall thickness	HB Class
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**General properties**

Density (23°C ISO 1183)	1,31 g/cm ³
Molding shrinkage (flow ISO 294-4)	0,1-0,3 %
Molding shrinkage (transverse ISO 294-4)	0,5-0,7 %

**Electrical Properties**

Surface resistivity (DIN EN 62631-3-2) d.a.m. conditioned	1,0E+3 Ohm 1,0E+3 Ohm
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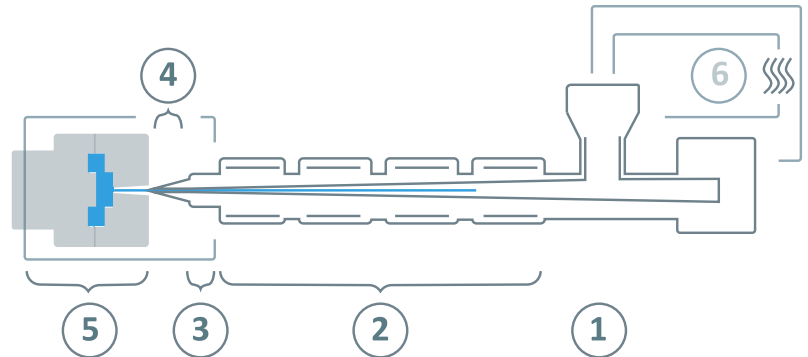
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AKROMID® B3 ICF 40 AM black (8236)**Processing information**

The listed values are recommendations. Higher values should be used for higher glass loadings. We recommend only dehumidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.



⑥	Drying time	0 - 4 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80°C
	Processing moisture	0,02 - 0,1%
①	Feed section	60 - 80°C
②	Temperature zone 1 - Zone 4	240 - 300°C
③	Nozzle temperature	270 - 300°C
④	Melt temperature	270 - 300°C
⑤	Mold temperature	80 - 130°C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

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