

PARA – Polyamide PARA CF50

AKROLOY® PARA CF 50 black (5912)

Tensile modulus

44700 MPa

1 mm/min

ISO 527-2

Stress at break

295 MPa

5 mm/min

ISO 527-2

Charpy impact strength

42 kJ/m²

23°C

ISO 179-1/1eU

AKROLOY® PARA CF 50 schwarz (5912) is a 50% carbon fibre reinforced polyarylamid with good flexural strength and tribological properties as well as reduced moisture.

Typical applications

Components with high dimensional stability, independent from moisture content.



Mechanical Properties

Tensile modulus (1 mm/min ISO 527-2) d.a.m.	44700 MPa
Stress at break (5 mm/min ISO 527-2) d.a.m.	295 MPa
Strain at break (5 mm/min ISO 527-2) d.a.m.	0,8 %
Flexural modulus (2 mm/min ISO 178) d.a.m.	44500 MPa
Flexural strength (2 mm/min ISO 178) d.a.m.	490 MPa
Standard bending strength RP 3,5 (2 mm/min ISO 178) d.a.m.	1,2 MPa
Charpy impact strength (23°C ISO 179-1/1eU) d.a.m.	42 kJ/m ²
Charpy notched impact strength (23°C ISO 179-1/1eA) d.a.m.	7 kJ/m ²



Thermal Properties

Melt temperature (DSC, 10K/min DIN EN 11357-1)	235 °C
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Flammability

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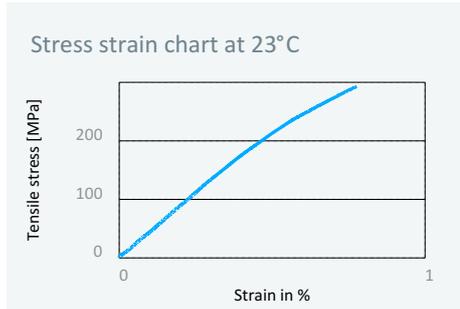


General properties

Density (23°C ISO 1183)	1,45 g/cm ³
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Disclaimer:

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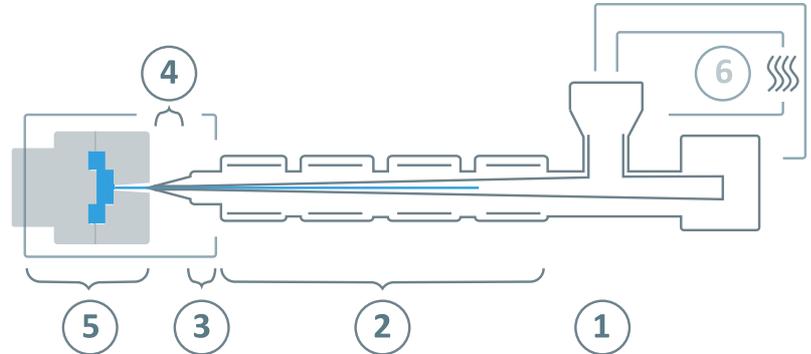
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Processing information

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	4 - 12 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80 - 90°C
	Processing moisture	0,02 - 0,1%
①	Feed section	60 - 80°C
②	Temperature zone 1 - Zone 4	250 - 300°C
③	Nozzle temperature	270 - 300°C
④	Melt temperature	270 - 300°C
⑤	Mold temperature	120 - 160°C
→	Holding pressure, spec.	300 - 1500 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	high
	Screw speed	8 - 10 m/min

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