

PA6 – Polyamide 6 PA6

AKROMID® B3 black (2502)

Tensile modulus

3600 MPa

1 mm/min

ISO 527-2

Stress at yield

85 MPa

50 mm/min

ISO 527-2

Charpy impact strength

n.b.

23°C

ISO 179-1/1eU

AKROMID® B3 black (2502) is an unreinforced polyamide 6.

Typical applications

Holds, housings and cover parts in automotive industry and power tools



Mechanical Properties

Tensile modulus (1 mm/min | ISO 527-2)

d.a.m.

3600 MPa

conditioned

1200 MPa

Stress at yield (50 mm/min | ISO 527-2)

d.a.m.

85 MPa

conditioned

45 MPa

Strain at break (50 mm/min | ISO 527-2)

d.a.m.

20 %

conditioned

> 50 %

Flexural modulus (2 mm/min | ISO 178)

d.a.m.

3100 MPa

Flexural strength (2 mm/min | ISO 178)

d.a.m.

120 MPa

Charpy impact strength (23°C | ISO 179-1/1eU)

d.a.m.

n.b.

conditioned

n.b.

Charpy impact strength (-30°C | ISO 179-1/1eU)

d.a.m.

n.b.

Charpy notched impact strength (23°C | ISO 179-1/1eA)

d.a.m.

5 kJ/m²

conditioned

16 kJ/m²

Charpy notched impact strength (-30°C | ISO 179-1/1eA)

d.a.m.

2 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa | ISO 75)

60 °C

Temperature of deflection under load HDT/B (0,45 MPa | ISO 75)

180 °C

Melt temperature (DSC, 10K/min | DIN EN 11357-1)

220 °C

Disclaimer:

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**Flammability**

Burning rate (UL 94)	
1,6mm Wall thickness	V-2 Class

GWFI (IEC 60695-2-12)	
1,6mm Wall thickness	750 °C

GWIT (IEC 60695-2-13)	
1,6mm Wall thickness	675 °C

Burning rate (<100 mm/min) (> 1 mm Thickness FMVSS 302)	+

**General properties**

Density (23°C ISO 1183)	1,13 g/cm ³

Humidity absorption (70°C, 62% r.H. ISO 1110)	2,6 - 3,4 %

Water absorption 23°C saturated (23°C, saturated ISO 62)	9,0 - 10,0 %

Molding shrinkage (flow ISO 294-4)	1,1 %

Molding shrinkage (transverse ISO 294-4)	1,0 %

**Electrical Properties**

Volume resistivity (IEC 60093)	
d.a.m.	1,0E+13 Ohm x cm
conditioned	1,0E+10 Ohm x cm

Surface resistivity (acc. to IEC 60093)	
d.a.m.	1,0E+12 Ohm
conditioned	1,0E+10 Ohm

Comparative tracking index (Test liquid A IEC 60112)	600 V

Disclaimer:

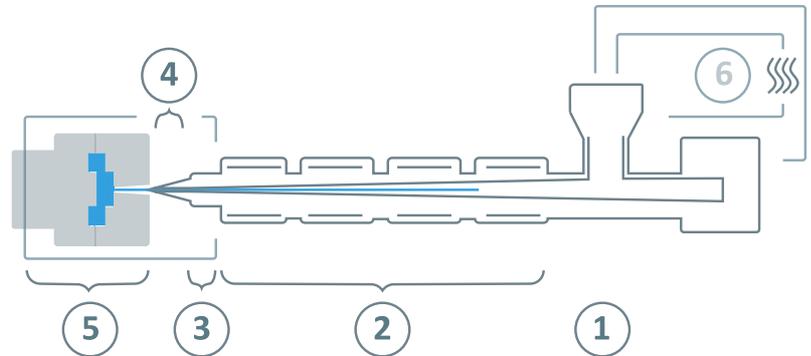
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Processing information

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	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	220 - 270°C
③	Nozzle temperature	230 - 300°C
④	Melt temperature	240 - 270°C
⑤	Mold temperature	40 - 80°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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