

PA6.6 – Polyamide 6.6 PA66-I

AKROMID® A3 1 S3 15 black (0)

Tensile modulus

2700 MPa

1 mm/min
ISO 527-2

Stress at yield

63 MPa

50 mm/min
ISO 527-2

Charpy impact strength

n.b.

23°C
ISO 179-1/1eU

AKROMID® A3 1 S3 15 black is an unreinforced, heat stabilised and dry impact modified polyamide 6.6

Typical applications

Connecting and fixing systems, used at elevated temperatures in the automotive and electro industry



Mechanical Properties

Tensile modulus (1 mm/min ISO 527-2)	
d.a.m.	2700 MPa
conditioned	1300 MPa

Stress at yield (50 mm/min ISO 527-2)	
d.a.m.	63 MPa
conditioned	45 MPa

Strain at break (50 mm/min ISO 527-2)	
d.a.m.	> 35 %
conditioned	> 100 %

Charpy impact strength (23°C ISO 179-1/1eU)	
d.a.m.	n.b.
conditioned	n.b.

Charpy notched impact strength (23°C ISO 179-1/1eA)	
d.a.m.	15 kJ/m ²
conditioned	25 kJ/m ²

Charpy notched impact strength (-30°C ISO 179-1/1eA)	
d.a.m.	10 kJ/m ²

Izod-notched impact strength (23°C ISO 180/1A)	
d.a.m.	15 kJ/m ²

Izod-notched impact strength (-20°C ISO 180/1A)	
d.a.m.	12 kJ/m ²

Izod-notched impact strength (-40°C ISO 180/1A)	
d.a.m.	12 kJ/m ²

Ball indentation hardness (358N/30s ISO 2039-1)	
d.a.m.	93 MPa



Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa ISO 75)	70 °C
Temperature of deflection under load HDT/B (0,45 MPa ISO 75)	213 °C
Melt temperature (DSC, 10K/min DIN EN 11357-1)	262 °C



Flammability

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

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General properties

Density (23°C ISO 1183)	1,1 g/cm ³
Humidity absorption (70°C, 62% r.H. ISO 1110)	2,1 %
Molding shrinkage (flow ISO 294-4)	2,1 %
Molding shrinkage (transverse ISO 294-4)	2,2 %



Electrical Properties

Volume resistivity (IEC 60093) d.a.m.	1,0E+15 Ohm x cm
Surface resistivity (acc. to IEC 60093) d.a.m.	1,0E+14 Ohm
Comparative tracking index (Test liquid A IEC 60112)	600 V

Disclaimer:

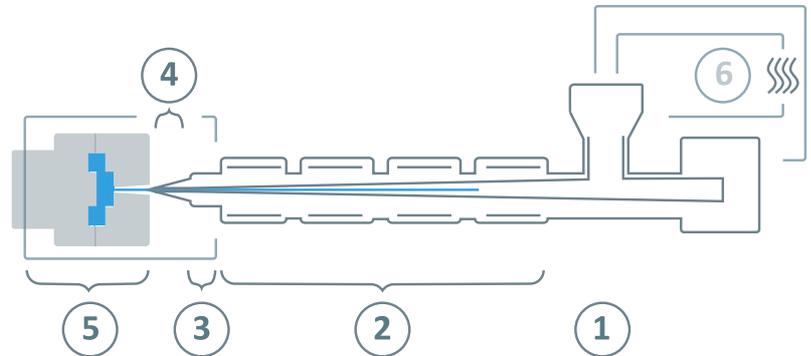
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Processing information

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	260 - 300°C
③	Nozzle temperature	270 - 310°C
④	Melt temperature	280 - 300°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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