

PA6 – Polyamide 6 PA6 GF15

# AKROMID® B3 GF 15 1 LA black (4128)

Tensile modulus

**6000 MPa**

1 mm/min

ISO 527-2

Stress at break

**120 MPa**

5 mm/min

ISO 527-2

Charpy impact strength

**50 kJ/m<sup>2</sup>**

23°C

ISO 179-1/1eU

AKROMID® B3 GF 15 1 LA black (4128) is a 15% glass fibre reinforced, heat stabilised polyamide 6 with medium stiffness and strength, lasermarkable.

### Typical applications

Mainly components in mechanical engineering and in the automotive industry



### Mechanical Properties

<b>Tensile modulus (1 mm/min   ISO 527-2)</b>	
d.a.m.	6000 MPa
conditioned	3300 MPa
<b>Stress at break (5 mm/min   ISO 527-2)</b>	
d.a.m.	120 MPa
conditioned	75 MPa
<b>Strain at break (5 mm/min   ISO 527-2)</b>	
d.a.m.	3 %
conditioned	10 %
<b>Flexural modulus (2 mm/min   ISO 178)</b>	
d.a.m.	5200 MPa
<b>Flexural strength (2 mm/min   ISO 178)</b>	
d.a.m.	180 MPa
<b>Charpy impact strength (23°C   ISO 179-1/1eU)</b>	
d.a.m.	50 kJ/m <sup>2</sup>
conditioned	95 kJ/m <sup>2</sup>
<b>Charpy impact strength (-30°C   ISO 179-1/1eU)</b>	
d.a.m.	40 kJ/m <sup>2</sup>
<b>Charpy notched impact strength (23°C   ISO 179-1/1eA)</b>	
d.a.m.	5 kJ/m <sup>2</sup>
<b>Charpy notched impact strength (-30°C   ISO 179-1/1eA)</b>	
d.a.m.	5 kJ/m <sup>2</sup>



### Thermal Properties

<b>Temperature of deflection under load HDT/A (1,8 MPa   ISO 75)</b>	205 °C
<b>Temperature of deflection under load HDT/B (0,45 MPa   ISO 75)</b>	215 °C
<b>Melt temperature (DSC, 10K/min   DIN EN 11357-1)</b>	220 °C



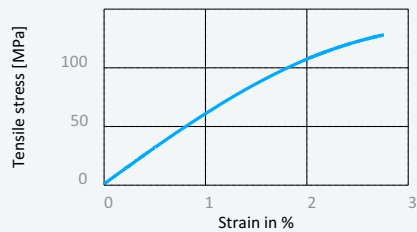
### Flammability

<b>Burning rate (UL 94)</b> 0,8mm Wall thickness	HB Class
<b>Burning rate (&lt;100 mm/min) (&gt; 1 mm Thickness   FMVSS 302)</b>	+

**Disclaimer:**

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Stress strain chart at 23°C

**General properties**

Density (23°C   ISO 1183)	1,23 g/cm <sup>3</sup>
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Humidity absorption (70°C, 62% r.H.   ISO 1110)	2,6 - 2,9 %
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Molding shrinkage (flow   ISO 294-4)	0,2 - 0,4 %
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Molding shrinkage (transverse   ISO 294-4)	0,6 - 0,8 %

**Electrical Properties**

Volume resistivity (IEC 60093)	
d.a.m.	1,0E+13 Ohm x cm
conditioned	1,0E+10 Ohm x cm
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Surface resistivity (acc. to IEC 60093)	
d.a.m.	1,0E+12 Ohm
conditioned	1,0E+10 Ohm
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Comparative tracking index (Test liquid A   IEC 60112)	600 V

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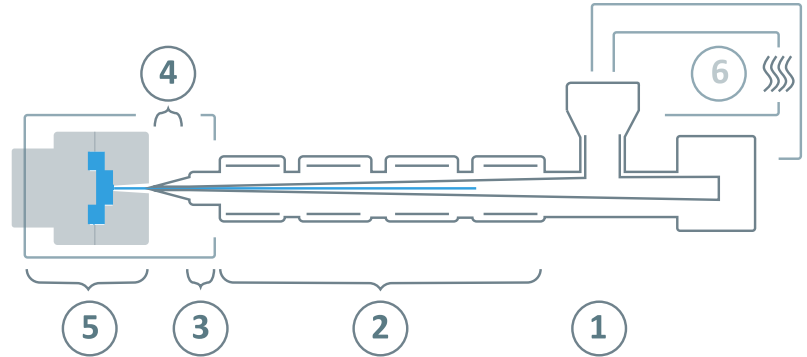
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### Processing information

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	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 - 290°C
③	Nozzle temperature	260 - 300°C
④	Melt temperature	270 - 290°C
⑤	Mold temperature	80 - 100°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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