

PA6.6/6 – Polyamide 6.6/6 PA66 + PA6 GF 50

## AKROMID® C3 GF 50 5 XTC natural (4946)

Tensile modulus

**17500 MPa**

1 mm/min  
ISO 527-2

Stress at break

**255 MPa**

5 mm/min  
ISO 527-2

Charpy impact strength

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

23°C  
ISO 179-1/1eU

AKROMID® C3 GF 50 5 XTC natural (4946) is a 50% glass fibre reinforced, high temperature stabilised polyamide 6.6/6 - Blend with very high stiffness and strength and extra high temperature tolerance.

### Typical applications

Components in mechanical engineering and in the automotive industry.



### Mechanical Properties

Tensile modulus (1 mm/min   ISO 527-2)	
d.a.m.	17500 MPa
conditioned	10500 MPa
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Stress at break (5 mm/min   ISO 527-2)	
d.a.m.	255 MPa
conditioned	160 MPa
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Strain at break (5 mm/min   ISO 527-2)	
d.a.m.	3,3 %
conditioned	5 %
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Flexural modulus (2 mm/min   ISO 178)	
d.a.m.	17000 MPa
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Flexural strength (2 mm/min   ISO 178)	
d.a.m.	420 MPa
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Charpy impact strength (23°C   ISO 179-1/1eU)	
d.a.m.	125 kJ/m <sup>2</sup>
conditioned	140 kJ/m <sup>2</sup>
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Charpy impact strength (-30°C   ISO 179-1/1eU)	
d.a.m.	130 kJ/m <sup>2</sup>
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Charpy notched impact strength (23°C   ISO 179-1/1eA)	
d.a.m.	25 kJ/m <sup>2</sup>
conditioned	30 kJ/m <sup>2</sup>
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Charpy notched impact strength (-30°C   ISO 179-1/1eA)	
d.a.m.	25 kJ/m <sup>2</sup>



### Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa   ISO 75)	230 °C
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Temperature of deflection under load HDT/C (8 MPa   ISO 75)	195 °C
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Melt temperature (DSC, 10K/min   DIN EN 11357-1)	245 °C



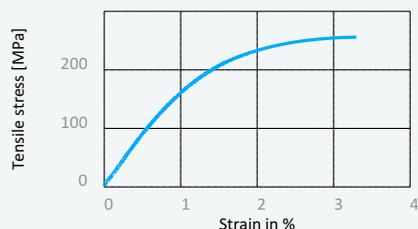
### Flammability

Burning rate (UL 94)	
1,6mm Wall thickness	HB Class
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Burning rate (<100 mm/min) (> 1 mm Thickness   FMVSS 302)	+

#### Disclaimer:

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Stress strain chart at 23°C



### General properties

Humidity absorption (70°C, 62% r.H.   ISO 1110)	1,7 %
Molding shrinkage (flow   ISO 294-4)	0,1-0,3 %
Molding shrinkage (transverse   ISO 294-4)	0,4-0,6 %



### 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

**Disclaimer:**

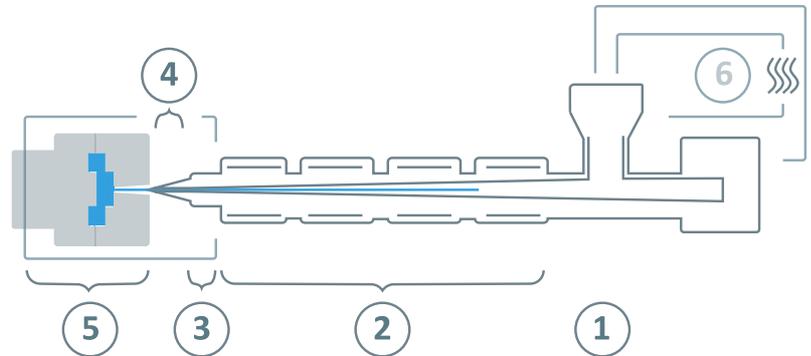
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### Processing information

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 - 300°C
④	Melt temperature	270 - 300°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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