

# AKROMID®

## B3 GF 60 1 natural (2468)

PA6 GF60

AKROMID® B3 GF 60 1 natural (2468) is a 60% glass fibre reinforced heat stabilised polyamide 6 with very high rigidity and strength and light inherent color.

### Features

heat stabilised 130

### Properties

Modulus	Strength	Impact
21.000 MPa	240 MPa	90 kJ/m <sup>2</sup>

## Mechanical Properties

<b>Tensile modulus</b> ISO 527-2	1 mm/min   d.a.m.	21000 MPa
	1 mm/min   conditioned	13500 MPa
<b>Tensile stress at break</b> ISO 527-2	5 mm/min   d.a.m.	240 MPa
	5 mm/min   conditioned	150 MPa
<b>Tensile strain at break</b> ISO 527-2	5 mm/min   d.a.m.	2,5 %
	5 mm/min   conditioned	3,5 %
<b>Flexural modulus</b> ISO 178	2 mm/min   d.a.m.	19000 MPa
<b>Flexural strength</b> ISO 178	2 mm/min   d.a.m.	370 MPa
<b>Charpy impact strength</b> ISO 179-1/1eU	23°C   d.a.m.	90 kJ/m <sup>2</sup>
	23°C   conditioned	95 kJ/m <sup>2</sup>
	-30°C   d.a.m.	88 kJ/m <sup>2</sup>
<b>Charpy notched impact strength</b> ISO 179-1/1eA	23°C   d.a.m.	20 kJ/m <sup>2</sup>
	23°C   conditioned	25 kJ/m <sup>2</sup>
	-30°C   d.a.m.	19 kJ/m <sup>2</sup>

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<b>Ball indentation hardness</b>	961N/30s   d.a.m.	290 MPa
ISO 2039-1		

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## Thermal Properties

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<b>Temperature of deflection under load HDT/A</b>	1,8 MPa	220 °C
ISO 75		

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<b>Temperature of deflection under load HDT/B</b>	0,45 MPa	220 °C
ISO 75		

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<b>Temperature of deflection under load HDT/C</b>	8 MPa	190 °C
ISO 75		

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<b>Melting temperature</b>	DSC, 10K/min	220 °C
ISO 11357-3		

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<b>Temperature index for 50% loss of tensile strength</b>	5.000 h	160 - 175 °C
IEC 60216	20.000 h	130 - 150 °C

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## Flammability

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<b>Flammability</b>	0,8 mm Wall thickness	HB Class
UL 94		

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<b>GWFI</b>	1,6 mm Wall thickness	650 °C
IEC 60695-2-12		

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<b>Burning rate (&lt;100 mm/min)</b>	> 1 mm Thickness	+
FMVSS 302		

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## General Properties

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<b>Density</b>	23°C	1,7 g/cm <sup>3</sup>
ISO 1183		

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<b>Humidity absorption</b>	70°C, 62% r.H.	0,9 - 1,2 %
ISO 1110		

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<b>Water absorption</b>	23°C, saturated	3,9 - 4,4 %
ISO 62		

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<b>Molding shrinkage</b>	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,3 - 0,5 %

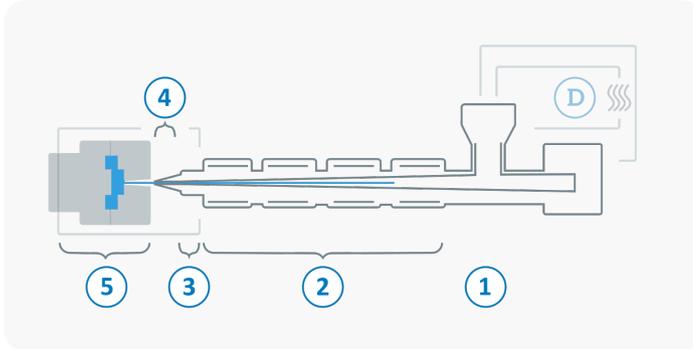
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## Electrical Properties

<b>Volume resistivity</b> IEC 62631-3-1	d.a.m. conditioned	$10^{13} \Omega \times \text{cm}$ $10^{10} \Omega \times \text{cm}$
<b>Surface resistivity</b> IEC 62631-3-2	d.a.m. conditioned	$10^{12} \Omega$ $10^{10} \Omega$
<b>Comparative tracking index</b> IEC 60112	Test liquid A	600 V

## Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



<b>D</b>	Drying time	0 - 4 h
	Drying temperature ( $\tau \leq -30^{\circ}\text{C}$ )	80 °C
	Processing moisture	0,02 - 0,1 %
<b>1</b>	Feed section	60 - 80 °C
<b>2</b>	Temperature Zone 1 - Zone 4	240 - 290 °C
<b>3</b>	Nozzle temperature	260 - 300 °C
<b>4</b>	Melt temperature	270 - 290 °C
<b>5</b>	Mold temperature	80 - 100 °C
<b>→</b>	Holding pressure, spec.	300 - 800 bar
<b>←</b>	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min