

# AKROMID® ★

## B3 GF 30 1 natural (2464)

PA6 GF30

AKROMID® B3 GF 30 1 natural (2464) is a 30% glass fiber reinforced polyamide 6. It is characterised by a high stiffness and strength. Furthermore, the material is heat stabilised and therefore perfectly suitable for technical parts in industrial engineering and in the automotive industry. The material has a light inherent color.

### Features

heat stabilised 130

### Properties



## Mechanical Properties

<b>Tensile modulus</b> ISO 527-2	1 mm/min   d.a.m.	<b>10300 MPa</b>
	1 mm/min   conditioned	<b>6200 MPa</b>
<b>Tensile stress at break</b> ISO 527-2	5 mm/min   d.a.m.	<b>185 MPa</b>
	5 mm/min   conditioned	<b>110 MPa</b>
<b>Tensile strain at break</b> ISO 527-2	5 mm/min   d.a.m.	<b>3 %</b>
	5 mm/min   conditioned	<b>5,5 %</b>
<b>Flexural modulus</b> ISO 178	2 mm/min   d.a.m.	<b>9200 MPa</b>
	2 mm/min   conditioned	<b>5800 MPa</b>
<b>Flexural strength</b> ISO 178	2 mm/min   d.a.m.	<b>270 MPa</b>
	2 mm/min   conditioned	<b>175 MPa</b>
<b>Flexural strain at break</b> ISO 178	2 mm/min   d.a.m.	<b>3,7 %</b>
	2 mm/min   conditioned	<b>5,6 %</b>
<b>Charpy impact strength</b> ISO 179-1/1eU	23°C   d.a.m.	<b>95 kJ/m<sup>2</sup></b>
	23°C   conditioned	<b>105 kJ/m<sup>2</sup></b>
	-30°C   d.a.m.	<b>85 kJ/m<sup>2</sup></b>

<b>Charpy notched impact strength</b> ISO 179-1/1eA	23°C   d.a.m. 23°C   conditioned -30°C   d.a.m.	13 kJ/m <sup>2</sup> 18 kJ/m <sup>2</sup> 12 kJ/m <sup>2</sup>
<b>Izod notched impact strength</b> ISO 180/1A	23°C   d.a.m.	14 kJ/m <sup>2</sup>
<b>Ball indentation hardness</b> ISO 2039-1	961N/30s   d.a.m.	230 MPa

## Thermal Properties

<b>Temperature of deflection under load HDT/A</b> ISO 75	1,8 MPa	210 °C
<b>Temperature of deflection under load HDT/B</b> ISO 75	0,45 MPa	220 °C
<b>Temperature of deflection under load HDT/C</b> ISO 75	8 MPa	150 °C
<b>Melting temperature</b> ISO 11357-3	DSC, 10K/min	220 °C
<b>Coefficient of linear thermal expansion</b> ISO 11359-1/2	23°C to 80°C   parallel 23°C to 80°C   transverse	0,16 10 <sup>-4</sup> /K 0,95 10 <sup>-4</sup> /K
<b>Temperature index for 50% loss of tensile strength</b> IEC 60216	5.000 h 20.000 h	160 - 175 °C 130 - 150 °C

## Flammability

<b>Flammability</b> UL 94	0,8 mm Wall thickness	HB Class
<b>GWFI</b> IEC 60695-2-12	1,6 mm Wall thickness	650 °C
<b>Burning rate (&lt;100 mm/min)</b> FMVSS 302	> 1 mm Thickness	+

## General Properties

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<b>Density</b> ISO 1183	23°C	1,36 g/cm <sup>3</sup>
<b>Humidity absorption</b> ISO 1110	70°C, 62% r.H.	2,1 - 2,3 %
<b>Water absorption</b> ISO 62	23°C, saturated	6,3 - 6,9 %
<b>Molding shrinkage</b> ISO 294-4	flow transverse	0,1 - 0,3 % 0,5 - 0,7 %

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## Electrical Properties

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<b>Volume resistivity</b> IEC 62631-3-1	d.a.m. conditioned	10 <sup>13</sup> Ω x cm 10 <sup>10</sup> Ω x cm
<b>Surface resistivity</b> IEC 62631-3-2	d.a.m. conditioned	10 <sup>12</sup> Ω 10 <sup>10</sup> Ω
<b>Comparative tracking index</b> IEC 60112	Test liquid A	600 V

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## Rheological Properties

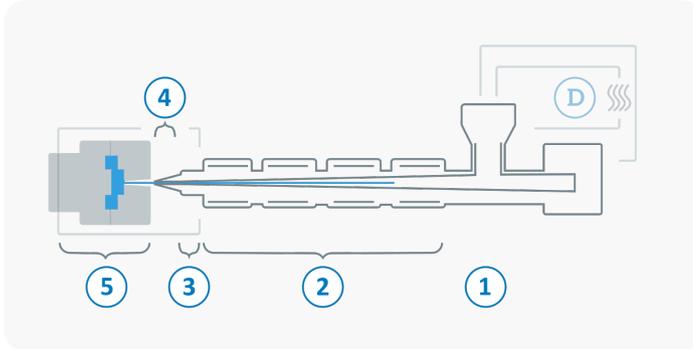
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<b>Flowability</b> AKRO	2 mm Thickness	480 mm
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## Processing

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

## Diagrams

