

# AKROMID®

## A3 GF 50 6 natural (5916)

PA66 GF50

AKROMID® A3 GF 50 6 natural (5916) is a 50% glass fiber reinforced polyamide 6.6. It is characterised by a very high stiffness and strength. Furthermore, the material is anorganically high heat stabilised and therefore perfectly suitable for technical parts in industrial engineering and in the automotive industry, e.g. gearbox components. It is optimised for extrusion. The material has a light inherent color.

### Features

heat stabilised 160

### Properties

Modulus	Strength	Impact
17.000 MPa	270 MPa	105 kJ/m <sup>2</sup>

## Mechanical Properties

<b>Tensile modulus</b> ISO 527-2	1 mm/min   d.a.m.	17000 MPa
<b>Tensile stress at break</b> ISO 527-2	5 mm/min   d.a.m.	270 MPa
<b>Tensile strain at break</b> ISO 527-2	5 mm/min   d.a.m.	2,8 %
<b>Charpy impact strength</b> ISO 179-1/1eU	23°C   d.a.m.	105 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>

## Thermal Properties

<b>Melting temperature</b> ISO 11357-3	DSC, 10K/min	262 °C
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## General Properties

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<b>Density</b> ISO 1183	23°C	<b>1,57 g/cm<sup>3</sup></b>
<b>Molding shrinkage</b> ISO 294-4	flow	<b>0,1 - 0,3 %</b>
	transverse	<b>0,5 - 0,7 %</b>

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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	260 - 300 °C
<b>3</b>	Nozzle temperature	270 - 310 °C
<b>4</b>	Melt temperature	280 - 300 °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

