

# AKROMID® PRELIMINARY

## T5 GF 50 9 black (8001)

PPA GF50

AKROMID® T5 GF 50 9 black (8001) is a 50% glass fibre reinforced polyphthalamide with very high rigidity and strength, as well as high temperature and chemical resistance. This aromatic PPA keeps mechanical performance even at elevated temperatures or moisture pic-up. This product was optimized and provides a very good surface quality.

### Features

surface modified

### Properties

Modulus

18.500 MPa

Strength

255 MPa

Impact

65 kJ/m<sup>2</sup>

## Mechanical Properties

Tensile modulus <small>ISO 527-2</small>	1 mm/min   d.a.m.	18500 MPa
	1 mm/min   conditioned	18500 MPa
Tensile stress at break <small>ISO 527-2</small>	5 mm/min   d.a.m.	255 MPa
	5 mm/min   conditioned	255 MPa
Tensile strain at break <small>ISO 527-2</small>	5 mm/min   d.a.m.	1,9 %
	5 mm/min   conditioned	1,9 %
Charpy impact strength <small>ISO 179-1/1eU</small>	23°C   d.a.m.	65 kJ/m <sup>2</sup>
	23°C   conditioned	58 kJ/m <sup>2</sup>
Charpy notched impact strength <small>ISO 179-1/1eA</small>	23°C   d.a.m.	13 kJ/m <sup>2</sup>

## Thermal Properties

Temperature of deflection under load HDT/C <small>ISO 75</small>	8 MPa	220 °C
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<b>Glass transition temperature</b>	DSC, 2nd heating	<b>135 °C</b>
ISO 11357-2		

<b>Melting temperature</b>	DSC, 10K/min	<b>325 °C</b>
ISO 11357-3		

## Flammability

<b>Flammability</b>	1,6 mm Wall thickness	<b>HB Class</b>
UL 94		

## General Properties

<b>Density</b>	23°C	<b>1,65 g/cm<sup>3</sup></b>
ISO 1183		

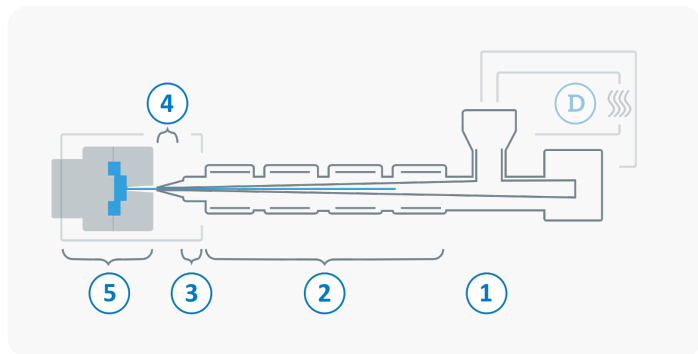
<b>Molding shrinkage</b>	flow	<b>0,1 - 0,3 %</b>
ISO 294-4	transverse	<b>0,4 - 0,6 %</b>

## Rheological Properties

<b>Flowability</b>	2 mm Thickness	<b>400 mm</b>
AKRO		

## 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 ( $\tau \leq -30^{\circ}\text{C}$ )	120 °C
	Processing moisture	0,02 - 0,1 %
<b>1</b>	Feed section	60 - 90 °C
<b>2</b>	Temperature Zone 1 - Zone 4	320 - 350 °C
<b>3</b>	Nozzle temperature	330 - 350 °C
<b>4</b>	Melt temperature	330 - 350 °C
<b>5</b>	Mold temperature	120 - 160 °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