

# AKROMID® PRELIMINARY

## T5 GF 50 6 natural (8056)

PPA GF50

Standard Grade with good surface quality. AKROMID® T5 GF 50 6 natural (8056) is a 50% glass fibre reinforced polyphthalamide with anorganic heat stabilization, very high rigidity and strength, as well as high temperature and chemical resistance. This aromatic PPA keeps its mechanical performance even at elevated temperatures or moisture pick-up

### Features

heat stabilised 160

### Properties

Modulus

18.000 MPa

Strength

270 MPa

Impact

90 kJ/m<sup>2</sup>

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

18000 MPa

1 mm/min | conditioned

18000 MPa

### Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

270 MPa

5 mm/min | conditioned

270 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

1,9 %

5 mm/min | conditioned

1,9 %

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

90 kJ/m<sup>2</sup>

23°C | conditioned

95 kJ/m<sup>2</sup>

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

13 kJ/m<sup>2</sup>

## Thermal Properties

### Temperature of deflection under load HDT/C

ISO 75

8 MPa

230 °C

<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>	0,8 mm Wall thickness	<b>HB Class</b>
UL 94	1,6 mm Wall thickness	<b>HB Class</b>
	3,2 mm Wall thickness	<b>HB Class</b>

## General Properties

<b>Density</b>	23°C	<b>1,65 g/cm³</b>
ISO 1183		

<b>Humidity absorption</b>	70°C, 62% r.H.	<b>0,7 - 0,9 %</b>
ISO 1110		

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