

# AKROMID® PRELIMINARY

## T9 GF 30 S1 black (7873)

PPA-I GF30

AKROMID® T9 GF 30 S1 black (7873) is a 30% glass fibre reinforced, cold impact strength polyphthalamide with medium stiffness and strength, as well as high chemical resistance. The compound is based on PA9T and has lower moisture uptake than conventional PA6T variants. This leads to a significantly higher consistency of the glass transition temperature and higher strength at elevated temperatures especially in conditioned state.

### Features

heat stabilised 160

### Properties

Modulus

8.700 MPa

Strength

165 MPa

Impact

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

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

8700 MPa

### Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

165 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

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

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

16 kJ/m<sup>2</sup>

## Thermal Properties

### Glass transition temperature

ISO 11357-2

DSC, 2nd heating

125 °C

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**Melting temperature**

ISO 11357-3

DSC, 10K/min

**305 °C**

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**Flammability**

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**Flammability**

UL 94

1,6 mm Wall thickness

**HB Class**

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**General Properties**

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**Density**

ISO 1183

23°C

**1,33 g/cm<sup>3</sup>**

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**Humidity absorption**

ISO 1110

70°C, 62% r.H.

**0,7 - 1,0 %**

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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 ( $\tau \leq -30^{\circ}\text{C}$ )	120 °C
Processing moisture	<0,05 %
<b>(1)</b> Feed section	60 - 90 °C
<b>(2)</b> Temperature Zone 1 - Zone 4	300 - 340 °C
<b>(3)</b> Nozzle temperature	310 - 350 °C
<b>(4)</b> Melt temperature	310 - 340 °C
<b>(5)</b> Mold temperature	>135 °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