

# AKROMID® PRELIMINARY

## T9 ICF 30 1 black (7908)

PPA CF 30

AKROMID® T9 ICF 30 1 black (7908) is a 30% carbon fibre polyphthalamide with high 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 130   recycled content   reduced moisture   Sports & leisure

### Properties

Modulus

26.000 MPa

Strength

235 MPa

Impact

40 kJ/m<sup>2</sup>

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

26000 MPa

### Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

235 MPa

### Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

1,2 %

### Flexural modulus

ISO 178

2 mm/min | d.a.m.

18000 MPa

### Flexural strength

ISO 178

2 mm/min | d.a.m.

300 MPa

### Flexural strain at break

ISO 178

2 mm/min | d.a.m.

2,1 %

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

40 kJ/m<sup>2</sup>

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

6 kJ/m<sup>2</sup>

## Thermal Properties

<b>Melting temperature</b>	DSC, 10K/min	<b>300 °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>1,27 g/cm<sup>3</sup></b>
ISO 1183		
<b>Molding shrinkage</b>	flow	<b>0,1 - 0,3 %</b>
	transverse	<b>0,4 - 0,6 %</b>
ISO 294-4		

## Electrical Properties

<b>Surface resistivity</b>	d.a.m.	<b>10<sup>2</sup> Ω</b>
IEC 62631-3-2		

## 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	<0,05 %
<b>(1)</b> Feed section	60 - 90 $^{\circ}\text{C}$
<b>(2)</b> Temperature Zone 1 - Zone 4	310 - 340 $^{\circ}\text{C}$
<b>(3)</b> Nozzle temperature	320 - 350 $^{\circ}\text{C}$
<b>(4)</b> Melt temperature	320 - 340 $^{\circ}\text{C}$
<b>(5)</b> Mold temperature	>150 $^{\circ}\text{C}$
<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