

## AKROMID®

### B3 CGM 15/20 1 LA black (8058)

PA6 (CF15+GF20)

AKROMID® B3 CGM 15/20 1 LA black (8058) is a 15% carbon fibre reinforced, 20% glass fibre reinforced, heat stabilised polyamide 6 with high stiffness and strength. Furthermore, the material impresses with its good laser marking properties as well as electrical conductivity. It is therefore perfectly suitable for technical applications in the automotive industry e.g. fuel filter housing.

#### Features

heat stabilised 130   laser markable   antistatic/conductive

#### Properties



## Sustainability

Recycled content 15 %

## Mechanical Properties

<b>Tensile modulus</b> <small>ISO 527-2</small>	1 mm/min   d.a.m.	<b>17000 MPa</b>
<b>Tensile stress at break</b> <small>ISO 527-2</small>	5 mm/min   d.a.m.	<b>195 MPa</b>
<b>Tensile strain at break</b> <small>ISO 527-2</small>	5 mm/min   d.a.m.	<b>2,5 %</b>
<b>Charpy impact strength</b> <small>ISO 179-1/1eU</small>	23°C   d.a.m.	<b>70 kJ/m<sup>2</sup></b>
<b>Charpy notched impact strength</b> <small>ISO 179-1/1eA</small>	23°C   d.a.m.	<b>10 kJ/m<sup>2</sup></b>

## Thermal Properties

<b>Temperature of deflection under load HDT/A</b> ISO 75	1,8 MPa	210 °C
<b>Melting temperature</b> ISO 11357-3	DSC, 10K/min	220 °C
<b>Coefficient of linear thermal expansion</b> ISO 11359-1/2	23°C to 80°C   parallel	0,07 10 <sup>-4</sup> /K
	23°C to 80°C   transverse	0,98 10 <sup>-4</sup> /K

## Flammability

<b>Flammability</b> UL 94	1,6 mm Wall thickness	HB Class
<b>Burning rate (&lt;100 mm/min)</b> FMVSS 302	> 1 mm Thickness	+

## General Properties

<b>Density</b> ISO 1183	23°C	1,36 g/cm <sup>3</sup>
<b>Humidity absorption</b> ISO 1110	70°C, 62% r.H.	1,8 - 2,1 %
<b>Molding shrinkage</b> ISO 294-4	flow	0,1 - 0,3 %
	transverse	0,5 - 0,7 %

## Electrical Properties

<b>Surface resistivity</b> IEC 62631-3-2	d.a.m.	10 <sup>4</sup> Ω
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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	240 - 290 °C
<b>3</b>	Nozzle temperature	260 - 300 °C
<b>4</b>	Melt temperature	270 - 290 °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

