

AKROMID® PRELIMINARY

A3 GF 30 6 ECO black (8160)

PA6.6 GF30

AKROMID® A3 GF 30 6 ECO black (8160) is a 30% glass fibre-reinforced, inorganically heat-stabilised polyamide 6.6. The material is suitable for technical components in mechanical engineering and the automotive industry with demands for high stiffness and strength. The formulations of the sustainable ECO products are partly based on regenerated post-industrial feedstock (at least 30 weight-% by recipe) and thus contribute to reducing the consumption of valuable raw materials. This type is laser-markable.

Features

heat stabilised 160 laser markable recycled content

Properties

Modulus

9.000 MPa

Strength

150 MPa

Impact

50 kJ/m²

Sustainability

Recycled content 30 %

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

9000 MPa

1 mm/min | conditioned

6300 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

150 MPa

5 mm/min | conditioned

100 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,5 %

5 mm/min | conditioned

5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

7500 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

50 kJ/m²

23°C | conditioned

65 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

7 kJ/m²

23°C | conditioned

11 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

255 °C

Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

260 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

262 °C

Flammability

Flammability

UL 94

1,6 mm Wall thickness

HB Class

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,36 g/cm³

Molding shrinkage

ISO 294-4

flow

0,1 - 0,3 %

transverse

0,5 - 0,7 %

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.



(D) Drying time	0 - 4 h
Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80 °C
Processing moisture	0,02 - 0,1 %
(1) Feed section	60 - 80 °C
(2) Temperature Zone 1 - Zone 4	260 - 300 °C
(3) Nozzle temperature	270 - 310 °C
(4) Melt temperature	280 - 300 °C
(5) Mold temperature	80 - 100 °C
(→) Holding pressure, spec.	300 - 800 bar
(←) Back pressure, spec.	50 - 150 bar
Injection speed	medium to high
Screw speed	8 - 15 m/min