

AKROMID®

NEXT S3 GF 30 1 HU black (8825)

PA6.10 GF30

AKROMID® NEXT S3 GF 30 1 black (8825) is a partially biobased and heat-stabilised PA6.10. With 30% glass fibre reinforcement, the material is suitable for household and industrial applications with high demands on strength and stiffness. This sustainable and UL listed grade is characterised by its low moisture absorption and high chemical resistance compared to classic PA6 and PA 6.6.

Features

Bio-based heat stabilised 130 reduced moisture

Regulatory



Properties

Modulus

8.600 MPa

Strength

160 MPa

Impact

100 kJ/m²

Sustainability

Biobased carbon content 59 %

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

8600 MPa

1 mm/min | conditioned

6200 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

160 MPa

5 mm/min | conditioned

110 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

4,5 %

5 mm/min | conditioned

7,5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

7700 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

230 MPa

Standard bending strength RP 3,5

ISO 178

2mm/min | d.a.m.

5,5 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

100 kJ/m²

23°C | conditioned

100 kJ/m²

-30°C | d.a.m.

100 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

17 kJ/m²

-30°C | d.a.m.

12 kJ/m²

Ball indentation hardness

ISO 2039-1

961N/30s | d.a.m.

195 MPa

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

205 °C

Temperature of deflection under load HDT/C

ISO 75

8 MPa

145 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

Flammability

Flammability

UL 94

UL 0,8 mm Wall thickness

HB Class

UL 3,2 mm Wall thickness

HB Class

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,31 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

1,1 - 1,3 %

Molding shrinkage

ISO 294-4

flow

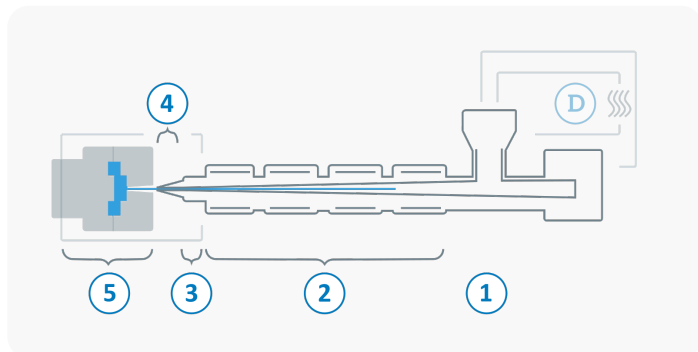
0,2 - 0,4 %

transverse

0,8 - 1,0 %

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	240 - 290 °C
(3) Nozzle temperature	240 - 300 °C
(4) Melt temperature	270 - 290 °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