

AKROMID®

B3 1 L black (4525)

PA6+PP

AKROMID® B3 1 L black (4525) is an unreinforced PA6-PP-blend with reduced density compared to standard PA6. The material can be used where weight and cost reduction is required.

Features

heat stabilised 130 reduced density

Properties

Modulus

2.300 MPa

Strength

55 MPa

Impact

180 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

2300 MPa

1 mm/min | conditioned

1200 MPa

Tensile stress at yield

ISO 527-2

50 mm/min | d.a.m.

55 MPa

50 mm/min | conditioned

40 MPa

Tensile strain at yield

ISO 527-2

50 mm/min | d.a.m.

4,5 %

Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

> 20 %

50 mm/min | conditioned

> 20 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

2200 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

75 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

no break

23°C | conditioned

no break

-30°C | d.a.m.

no break

-30°C | conditioned

no break

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

6 kJ/m²

23°C | conditioned

18 kJ/m²

-30°C | d.a.m.

5 kJ/m²

Ball indentation hardness

ISO 2039-1

358N/30s | d.a.m.

112 MPa

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

60 °C

Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

130 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

Coefficient of linear thermal expansion

ISO 11359-1/2

23°C to 80°C | parallel

0,95 10⁻⁴/K

23°C to 80°C | transverse

0,95 10⁻⁴/K

Flammability

Flammability

UL 94

0,8 mm Wall thickness

HB Class

GWFI

IEC 60695-2-12

0,8 mm Wall thickness

750 °C

GWIT

IEC 60695-2-13

0,8 mm Wall thickness

775 °C

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,04 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

1,8 - 2,0 %

Molding shrinkage

ISO 294-4

flow

1,0 - 1,2 %

transverse

1,1 - 1,3 %

Rheological Properties

Flowability

AKRO

1 mm Thickness

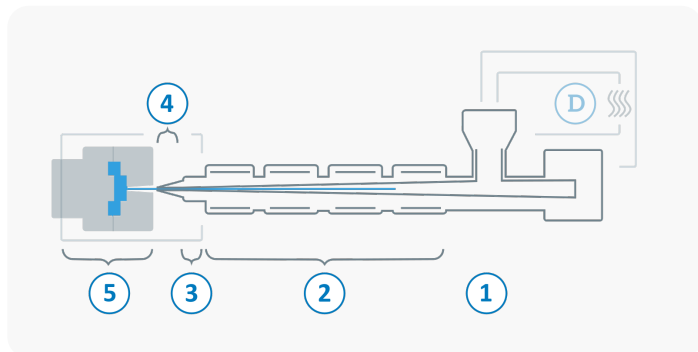
220 mm

2 mm Thickness

660 mm

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	220 - 270 °C
3	Nozzle temperature	230 - 300 °C
4	Melt temperature	240 - 270 °C
5	Mold temperature	40 - 80 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min