

AKROMID®

A3 1 L black (4652)

PA66 + PP

AKROMID® A3 1 L black (4652) is an unreinforced PA6.6/PP-blend with reduced density compared to standard PA6.6. The material can be used where weight and cost reduction is required.

Features

heat stabilised 130 reduced density

Properties

Modulus

2.300 MPa

Strength

54 MPa

Impact

180 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

2300 MPa

1 mm/min | conditioned

1300 MPa

Tensile stress at yield

ISO 527-2

50 mm/min | d.a.m.

54 MPa

50 mm/min | conditioned

40 MPa

Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

30 %

50 mm/min | conditioned

> 50 %

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.

6,5 kJ/m²

23°C | conditioned

12 kJ/m²

-30°C | d.a.m.

5 kJ/m²

-30°C | conditioned

4 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	65 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	150 °C
Melting temperature ISO 11357-3	DSC, 10K/min	262 °C

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	800 °C
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

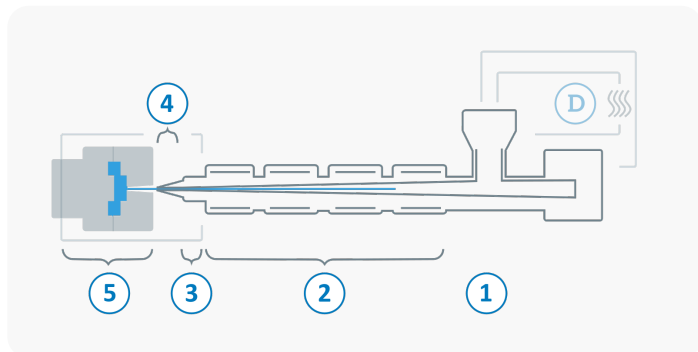
Density ISO 1183	23°C	1,04 g/cm ³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,7 %
Molding shrinkage ISO 294-4	flow transverse	2,5 % 1,8 %

Rheological Properties

MVR ISO 1133	275°C/5kg	29 cm ³ /10 min
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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.



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 - 300 °C
4	Melt temperature	270 - 300 °C
5	Mold temperature	70 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	5 - 15 m/min