

AKROMID®

A3 GK 40 1 natural (1803)

PA66 GB40

AKROMID® A3 GK 40 1 natural (1803) is a heat stabilised PA 6.6 filled with 40% glass beads. It is characterized by a high surface quality and low tendency to warp, which makes it suitable for use in technically demanding components in mechanical engineering and in the automotive industry.

Features

heat stabilised 130 recycled content low warpage

Properties

Modulus

5.500 MPa

Strength

95 MPa

Impact

25 kJ/m²

Sustainability

Recycled content 40 %

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

5500 MPa

1 mm/min | conditioned

2600 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

95 MPa

5 mm/min | conditioned

50 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

5 %

5 mm/min | conditioned

> 10 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

5800 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

145 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

25 kJ/m²

23°C | conditioned

45 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

3 kJ/m²

23°C | conditioned

5 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

120 °C

Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

230 °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

1,44 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

1,8 %

Water absorption

ISO 62

23°C, saturated

5,1 %

Molding shrinkage

ISO 294-4

flow

0,9 - 1,1 %

transverse

1,1 - 1,3 %

Electrical Properties

Volume resistivity

IEC 62631-3-1

d.a.m.

10¹⁵ Ω x cm

Surface resistivity

IEC 62631-3-2

d.a.m.

10¹³ Ω

Comparative tracking index

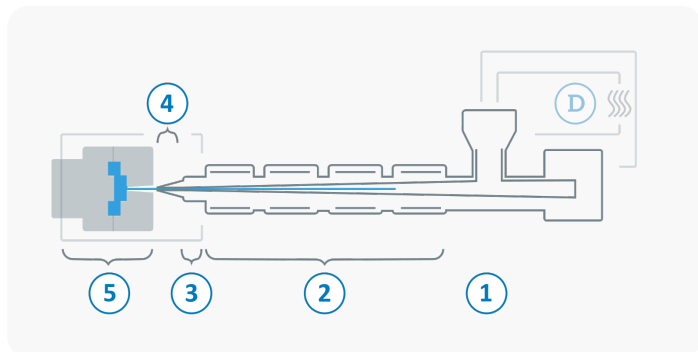
IEC 60112

Test liquid A

500 V

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