AKROMID®
B3 GK 50 natural (3690)

PA6 GB50

AKROMID® B3 GK 50 natural (3690) is a PA 6 filled with 50% 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

surface modified | recycled content | low warpage

Properties

Modulus	Strength	Impact
5.700 MPa	**75** MPa	**42** kJ/m²

Sustainability

Recycled content	**50 %**

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**5700 MPa** **2000 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**75 MPa** **45 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**4 %** **> 10 %**
Flexural modulus ISO 178	2 mm/min | d.a.m.	**5200 MPa**
Flexural strength ISO 178	2 mm/min | d.a.m.	**135 MPa**

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Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. -30°C | d.a.m.	**42 kJ/m²** **32 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**3 kJ/m²** **8 kJ/m²** **1 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**75 °C**
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	**188 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**225 °C**

Flammability

Flammability UL 94	1,6 mm Wall thickness	**HB Class**
GWFI IEC 60695-2-12	1,6 mm Wall thickness	**650 °C**
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	**+**

General Properties

Density ISO 1183	23°C	**1,54 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**1,5 %**
Water absorption ISO 62	23°C, saturated	**4,7 %**
Molding shrinkage ISO 294-4	flow transverse	**0,6 - 0,8 %** **0,7 - 0,9 %**

Electrical Properties

Volume resistivity IEC 62631-3-1	d.a.m.	**10^{15} Ω x cm**
Surface resistivity IEC 62631-3-2	d.a.m.	**10^{13} Ω**
Comparative tracking index IEC 60112	Test liquid A	**500 V**

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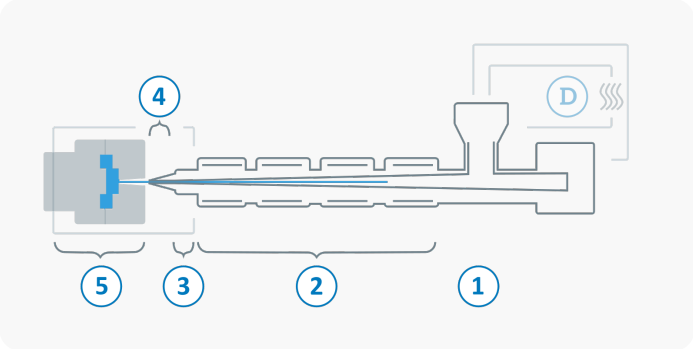
Processing

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 (τ <= -30°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	260 - 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