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AKRO COMPOUNDS

Compound No.: **6528**

AKROMID®

B3 1 black (6528)

PA6

AKROMID® B3 1 black (6528) is an unreinforced, heat stabilised polyamide 6

Features

heat stabilised 130

Regulatory

Properties

Modulus	Strength	Impact
3.600 MPa	**85** MPa	**180** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**3600 MPa** **1200 MPa**
Tensile stress at yield ISO 527-2	50 mm/min | d.a.m. 50 mm/min | conditioned	**85 MPa** **45 MPa**
Tensile strain at break ISO 527-2	50 mm/min | d.a.m. 50 mm/min | conditioned	**20 %** **> 50 %**
Flexural modulus ISO 178	2 mm/min | d.a.m.	**3100 MPa**
Flexural strength ISO 178	2 mm/min | d.a.m.	**120 MPa**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**no break** **no break** **no break**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**3,5 kJ/m²** **16 kJ/m²** **2 kJ/m²**

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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	**180 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**220 °C**
Temperature index for 50% loss of tensile strength IEC 60216	5.000 h 20.000 h	**100 - 140 °C** **90 - 120 °C**

Flammability

Flammability UL 94	UL 0,8 mm Wall thickness UL 1,6 mm Wall thickness UL 3,2 mm Wall thickness	**HB Class** **HB Class** **V-2 Class**
GWFI IEC 60695-2-12	1,6 mm Wall thickness	**750 °C**
GWIT IEC 60695-2-13	1,6 mm Wall thickness	**675 °C**
HWI UL 746A	UL 0,8 mm Wall thickness UL 1,6 mm Wall thickness UL 3,2 mm Wall thickness	**4 PLC** **3 PLC** **3 PLC**
HAI UL 746A	UL 0,8 mm Wall thickness 1,6 mm Wall thickness UL 3,2 mm Wall thickness	**1 PLC** **1 PLC** **0 PLC**
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	**1,13 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**2,6 - 3,4 %**

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Molding shrinkage ISO 294-4	flow	**1,0 - 1,2 %**
	transverse	**1,1 - 1,3 %**

Electrical Properties

Surface resistivity IEC 62631-3-2	d.a.m.	**10^{12} Ω**
	conditioned	**10^{10} Ω**
Comparative tracking index IEC 60112	UL Test liquid A	**600 V**
Comparative tracking index ASTM D3638	UL	**0 PLC**

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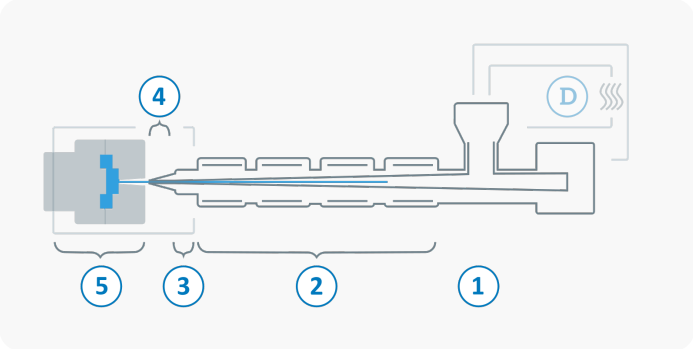
Processing

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	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

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Diagrams