AKRO COMPOUNDS

Compound No.: **2091**

AKROMID®
B3 GF 30 S1 black (2091)

PA6-I GF30

AKROMID® B3 GF 30 S1 black (2091) is a 30% glass fiber reinforced, impact modified Polyamide 6. It is characterised by high stiffness and strength as well as a higher impact strength compared to a standard PA 6 GF 30. The material is therefore perfectly suitable for industrial applications and for housings and covers in the automotive industry.

Features

impact modified

Properties

Modulus	Strength	Impact
7.500 MPa	**125** MPa	**110** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**7500 MPa** **4200 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**125 MPa** **70 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**6 %** **13 %**
Flexural modulus ISO 178	2 mm/min | d.a.m.	**6600 MPa**
Standard bending strength RP 3,5 ISO 178	2mm/min | d.a.m.	**170 MPa**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned -10°C | d.a.m. -20°C | d.a.m. -30°C | d.a.m. -30°C | conditioned -40°C | d.a.m.	**110 kJ/m²** **135 kJ/m²** **112 kJ/m²** **117 kJ/m²** **> 100 kJ/m²** **> 100 kJ/m²** **115 kJ/m²**

Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m.	**35 kJ/m²**
	23°C | conditioned	**45 kJ/m²**
	-10°C | d.a.m.	**26 kJ/m²**
	-20°C | d.a.m.	**25 kJ/m²**
	-30°C | d.a.m.	**25 kJ/m²**
	-30°C | conditioned	**22 kJ/m²**
	-40°C | d.a.m.	**22 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**200 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**222 °C**
Temperature index for 50% loss of tensile strength IEC 60216	20.000 h	**115* °C**

Flammability

Flammability UL 94	1,6 mm Wall thickness	**HB Class**
GWFI IEC 60695-2-12	0,8 mm Wall thickness	**675 °C**
GWIT IEC 60695-2-13	0,8 mm Wall thickness	**700 °C**
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	**+**

General Properties

Density ISO 1183	23°C	**1,28 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**1,4 %**
Molding shrinkage ISO 294-4	flow	**0,1- 0,3 %**
	transverse	**0,5 - 0,7 %**

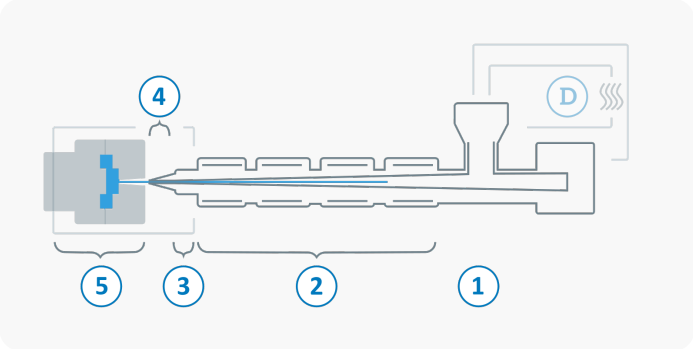
Electrical Properties

Volume resistivity IEC 62631-3-1	d.a.m.	**10^{13} Ω x cm**
	conditioned	**10^{10} Ω x cm**
Surface resistivity IEC 62631-3-2	d.a.m.	**10^{12} Ω**
	conditioned	**10^{10} Ω**

+135-3858-6433 (GuangDong)
+188-1699-6168 (ShangHai)
+852-6957-5415 (HongKong)

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