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AKRO COMPOUNDS

Compound No.: **8468**

AKROMID® PRELIMINARY
NEXT G3 GF 30 1 black (8468)

PA6.9 GF30

The partly bio-based AKROMID® NEXT G3 GF 30 1 black (8468) has an increased chemical resistance and a lower moisture absorption compared to the classic PA 6 and PA 6.6. This heat stabilised and 30% glass fibre reinforced PA 6.9 is suitable for components with high demands on strength and stiffness.

Features

Bio-based | heat stabilised 130 | electrically neutral | reduced moisture

Properties

Modulus	Strength	Impact
8.600 MPa	160 MPa	80 kJ/m²

Sustainability

Biobased carbon content	**55 %**

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**8600 MPa** **6300 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**160 MPa** **120 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**3,8 %** **5,3 %**
Flexural modulus ISO 178	2 mm/min | d.a.m.	**8300 MPa**
Flexural strength ISO 178	2 mm/min | d.a.m.	**250 MPa**
Flexural strain at break ISO 178	2 mm/min | d.a.m.	**4,8 %**

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Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**80 kJ/m²** **80 kJ/m²** **70 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**13 kJ/m²** **14 kJ/m²** **11 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**195 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**219 °C**

General Properties

Density ISO 1183	23°C	**1,31 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**1,1 - 1,3 %**
Water absorption ISO 62	23°C, saturated	**3,0 - 3,4 %**
Molding shrinkage ISO 294-4	flow transverse	**0,1 - 0,3 %** **0,7 - 0,9 %**

Rheological Properties

Flowability AKRO	2 mm Thickness	**420 mm**

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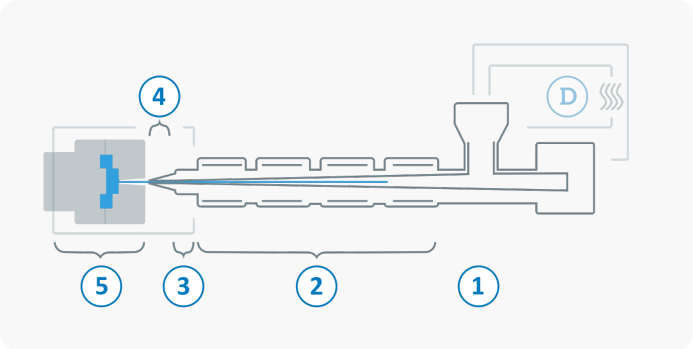
Processing

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	240 - 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