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AKRO COMPOUNDS

Compound No.: **6155**

AKROMID®
B28 LGF 40 1 L black (6155)

PA6 + PP LGF40

AKROMID® B28 LGF 40 1 L black (6155) is an easy flowing PA6/PP-blend with reduced density compared to standard PA6 LGF 40. With 40% long glass fiber reinforcement the material is suitable for components with extraordinary high stiffness and strength even at high temperature and very high impact and notched impact strength at elevated and low temperature, where weight reduction is required at the same time. B28 LGF 40 1 L black (6155) distinguish due to isotropic mechanical properties, low shrinkage, higher heat deflection temperature and very good fatigue performance. The material has very good surface properties.

Features

reduced density

Properties

Modulus	Strength	Impact
12.000 MPa	**200** MPa	**100** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**12000 MPa** **9500 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**200 MPa** **150 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**2,5 %** **2,5 %**
Flexural modulus ISO 178	2 mm/min | d.a.m.	**8000 MPa**
Flexural strength ISO 178	2 mm/min | d.a.m.	**220 MPa**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**100 kJ/m²** **80 kJ/m²** **80 kJ/m²**

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Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**35 kJ/m²** **35 kJ/m²** **35 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**200 °C**
Temperature of deflection under load HDT/C ISO 75	8 MPa	**190 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**220 °C**
Coefficient of linear thermal expansion ISO 11359-1/2	23°C to 80°C | parallel 23°C to 80°C | transverse	**0,12 10^{-4}/K** **0,93 10^{-4}/K**

General Properties

Density ISO 1183	23°C	**1,36 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**1,1 - 1,3 %**
Molding shrinkage ISO 294-4	flow transverse	**0,3 - 0,5 %** **0,6 - 0,8 %**

Rheological Properties

Flowability AKRO	1 mm Thickness 2 mm Thickness	**240 mm** **670 mm**

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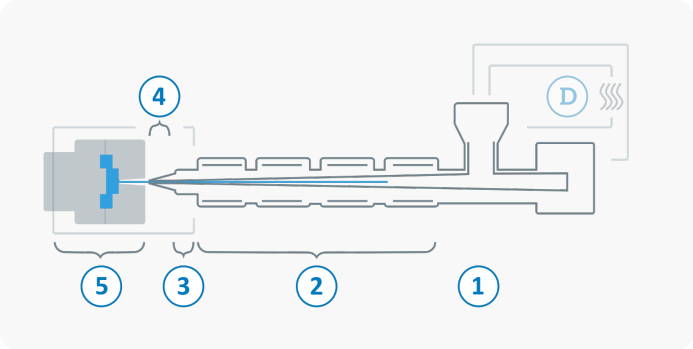
Processing

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	260 - 290 °C
3	Nozzle temperature	270 - 300 °C
4	Melt temperature	270 - 290 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	10 - 30 bar
	Injection speed	slow to medium
	Screw speed	5 - 15 m/min

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Diagrams