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AKRO COMPOUNDS

Compound No.: **5296**

AKROMID®
B3 ICF 20 1 L black (5296)

PA6 + PP CF20

AKROMID® B3 ICF 20 1 L black (5296) is a 20% carbon fibre reinforced, heat stabilised polyamide-blend with high flexural strength, good sliding properties and a reduced density compared to standard PA6 ICF 20

Features

heat stabilised 130 | reduced density

Properties

Modulus	Strength	Impact
14.200 MPa	**140** MPa	**50** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**14200 MPa** **9700 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**140 MPa** **120 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**2,5 %** **4,5 %**
Flexural modulus ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**13000 MPa** **9700 MPa**
Flexural strength ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**230 MPa** **170 MPa**
Flexural strain at break ISO 178	2 mm/min | d.a.m. 2 mm/min | conditioned	**3 %** **5 %**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned -30°C | d.a.m.	**50 kJ/m²** **60 kJ/m²** **45 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.	**9 kJ/m²** **11 kJ/m²** **6 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**

Flammability

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

General Properties

Density ISO 1183	23°C	**1,15 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**1,6 - 1,8 %**
Molding shrinkage ISO 294-4	flow transverse	**0,1 - 0,3 %** **0,4 - 0,6 %**

Electrical Properties

Surface resistivity IEC 62631-3-2	d.a.m.	**10^6 Ω**

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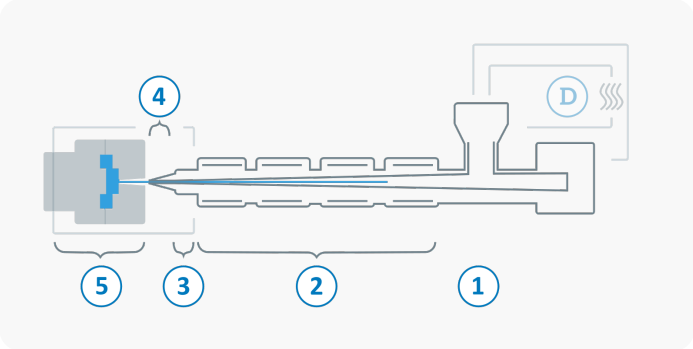
Processing

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 - 290 °C
3	Nozzle temperature	240 - 300 °C
4	Melt temperature	240 - 290 °C
5	Mold temperature	70 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	5 - 15 m/min