+135-3858-6433 (GuangDong)
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+852-6957-5415 (HongKong)

AKRO COMPOUNDS

Compound No.: **null**

AKROLEN® PRELIMINARY
NEXT PP ICF 20 AM black (8759BMBCI)

PP CF20

AKROLEN® NEXT PP ICF 20 AM black (8759BMBCI) is a biomass-balanced polypropylene with 20% recycled carbon fibre reinforcement. It is characterised by low density as well as medium stiffness and strength. The material is suitable for water contact applications. Furthermore, the compound has been developed especially for additive manufacturing at fast production speeds. The material is certified according to ISCC PLUS. 68% of the fossil raw materials required for manufacturing this product were replaced by sustainable biomass-balanced PP (¥allocation factor)

Features

biomass balanced | recycled content | reduced density | 3D printing / additive manufacturing

Regulatory

ISCC International Sustainability & Carbon Certification

Properties

Modulus	Strength	Impact
8.100 MPa	**60** MPa	**45** kJ/m²

Sustainability

Allocation factor only valid for ISCC PLUS/REDcert² certified products	**68 %**

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m.	**8100 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m.	**60 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m.	**4,5 %**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. -30°C | d.a.m.	**45 kJ/m²** **35 kJ/m²**

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Thermal Properties

Melting temperature ISO 11357-3	DSC, 10K/min	**165 °C**

General Properties

Density ISO 1183	23°C	**1,01 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**0,05 - 0,1 %**

Rheological Properties

MVR ISO 1133	230°C/2,16kg	**2 cm³/10 min**

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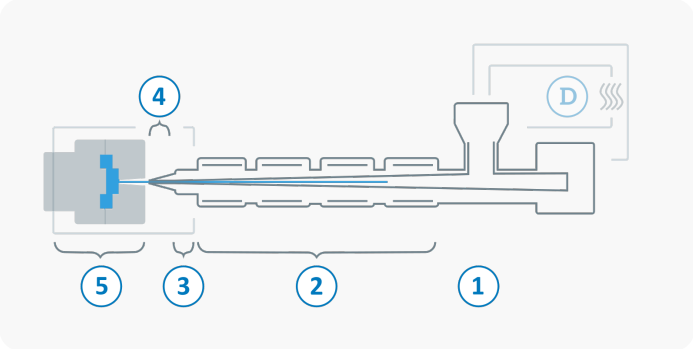
Processing

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 - 3 h
	Drying temperature (τ <= -30°C)	80 °C
	Processing moisture	⌀0,1 %
1	Feed section	40 - 80 °C
2	Temperature Zone 1 - Zone 4	200 - 255 °C
3	Nozzle temperature	200 - 255 °C
4	Melt temperature	215 - 265 °C
5	Mold temperature	30 - 80 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 100 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min