

Compound No.: 8344

# AKROLEN® PP ICF 30 AM black (8344)

PP CF30

AKROLEN PP® ICF 30 AM black (8344) is a polypropylene copolymer with 30% 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.

# recycled content reduced density 3D printing / additive manufacturing Properties Modulus Strength Impact 12.500 MPa 85 MPa 50 kJ/m²

### **Sustainability**

Recycled content		30 %
Mechanical Properties		
Tensile modulus ISO 527-2	1 mm/min   d.a.m.	12500 MPa
Tensile stress at break	5 mm/min   d.a.m.	85 MPa
Tensile strain at break ISO 527-2	5 mm/min   d.a.m.	2 %
Flexural modulus ISO 178	2 mm/min   d.a.m.	11400 MPa
Flexural strength ISO 178	2 mm/min   d.a.m.	125 MPa
Flexural strain at break	2 mm/min   d.a.m.	5,3 %



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Charpy impact strength ISO 179-1/1eU	23°C   d.a.m. -30°C   d.a.m.	50 kJ/m² 45 kJ/m²
Charpy notched impact strength ISO 179-1/1eA	23°C   d.a.m. -30°C   d.a.m.	15 kJ/m² 10 kJ/m²

# **Thermal Properties**

Melting temperature	DSC. 10K/min	165 °C
ISO 11357-3	550, 1010111111	.05 C

### **General Properties**

Density ISO 1183	23°C	1,07 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	0,05 - 0,1 %

# **Rheological Properties**

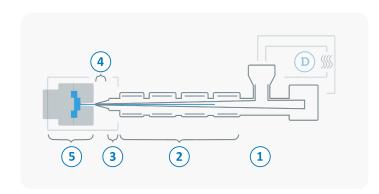
MVR	230°C/2,16kg	2 cm <sup>3</sup> /10 min
ISO 1133	250 C/2,10kg	2 (111 / 10 111111



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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	<b>0</b> ,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
$\bigcirc$	Holding pressure, spec.	300 - 800 bar
	Back pressure, spec.	50 - 100 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min