

AKROLOY®

PA ICF 30 black (5269)

PA66+PA6I/6T CF30

AKROLOY® PA ICF 30 black (5269) is a 30% carbon fibre reinforced, semi-aromatic polyamide blend with high stiffness, good sliding properties and reduced moisture.

Features

low warpage reduced moisture

Properties

Modulus

25.000 MPa

Strength

220 MPa

Impact

50 kJ/m²

Sustainability

Recycled content 30 %

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

25000 MPa

1 mm/min | conditioned

23000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

220 MPa

5 mm/min | conditioned

200 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

1,5 %

5 mm/min | conditioned

1,6 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

21000 MPa

2 mm/min | conditioned

21000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

320 MPa

2 mm/min | conditioned

300 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

2 %

2 mm/min | conditioned

2 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

50 kJ/m²

23°C | conditioned

50 kJ/m²

-30°C | d.a.m.

40 kJ/m²

-30°C | conditioned

40 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

7 kJ/m²

23°C | conditioned

7 kJ/m²

-30°C | d.a.m.

6 kJ/m²

-30°C | conditioned

6 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

230 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

255 °C

Flammability

Flammability

UL 94

0,8 mm Wall thickness

HB Class

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,29 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

1,6 %

Molding shrinkage

ISO 294-4

flow

0,1 - 0,3 %

transverse

0,3 - 0,5 %

Electrical Properties

Surface resistivity

IEC 62631-3-2

d.a.m.

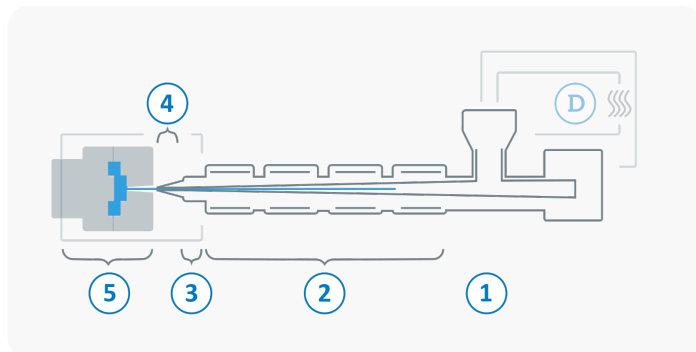
10⁴ Ω

conditioned

10⁴ Ω

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 ($\tau \leq -30^{\circ}\text{C}$)	80 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	260 - 310 °C
3	Nozzle temperature	270 - 310 °C
4	Melt temperature	280 - 310 °C
5	Mold temperature	90 - 130 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

Diagrams

