

AKROLOY®

PARA ICF 40 black (6130)

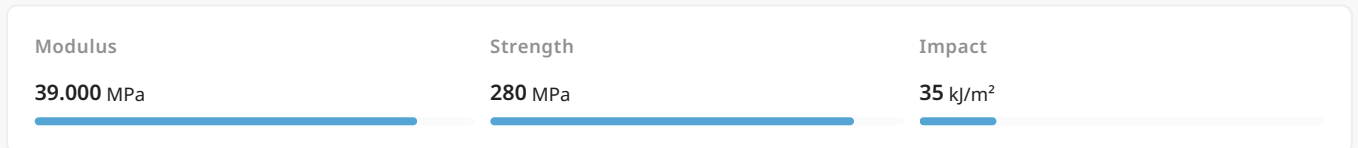
PARA CF40

AKROLOY® PARA ICF 40 black (6130) is a 40% carbon fibre reinforced Polyarylamide with very high stiffness. The material offers a higher process stability as well as a better weld line performance than its predecessor (6128), while the colour depth is reduced.

Features

reduced moisture tribological modified metal substitution

Properties



Sustainability

Recycled content 40 %

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min d.a.m.	39000 MPa
	1 mm/min conditioned	38000 MPa
Tensile stress at break ISO 527-2	5 mm/min d.a.m.	280 MPa
	5 mm/min conditioned	255 MPa
Tensile strain at break ISO 527-2	5 mm/min d.a.m.	1,0 %
	5 mm/min conditioned	1,0 %
Flexural modulus ISO 178	2 mm/min d.a.m.	37000 MPa
	2 mm/min conditioned	35000 MPa
Flexural strength ISO 178	2 mm/min d.a.m.	420 MPa
	2 mm/min conditioned	360 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

35 kJ/m²

-30°C | d.a.m.

35 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

6 kJ/m²

-30°C | d.a.m.

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

235 °C

Flammability

Flammability

UL 94

1,6 mm Wall thickness

HB Class

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,4 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

0,9 - 1,1 %

Molding shrinkage

ISO 294-4

flow

0,1 - 0,2 %

transverse

0,2 - 0,4 %

Electrical Properties

Volume resistivity

IEC 62631-3-1

d.a.m.

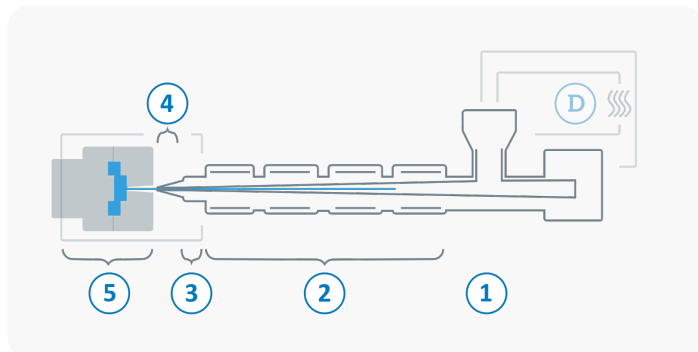
10⁴ Ω x cm

conditioned

10⁴ Ω x cm

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	4 - 12 h
	Drying temperature ($\tau \leq -30^{\circ}\text{C}$)	80 - 90 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	250 - 300 °C
3	Nozzle temperature	270 - 300 °C
4	Melt temperature	270 - 300 °C
5	Mold temperature	120 - 160 °C
→	Holding pressure, spec.	300 - 1500 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	high
	Screw speed	8 - 10 m/min