

AKROLOY®

PA GF 30 black (2718)

PA66+PA6I/6T

AKROLOY® PA GF 30 black (2718) is a 30% glass fibre reinforced, semi-aromatic polyamide blend with high stiffness and strength, even in conditioned state. The advanced version of this Product is AKROLOY® PA GF 30 black (6415) with a modern stabilization technology, featuring improved weld-line strength and an even wider process window.

Properties

Modulus

10.500 MPa

Strength

210 MPa

Impact

80 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

10500 MPa

1 mm/min | conditioned

10000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

210 MPa

5 mm/min | conditioned

180 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3 %

5 mm/min | conditioned

3 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

9300 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

265 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

4 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

80 kJ/m²

23°C | conditioned

80 kJ/m²

-30°C | d.a.m.

65 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

11 kJ/m²

23°C | conditioned

10 kJ/m²

-30°C | d.a.m.

10 kJ/m²

Ball indentation hardness

ISO 2039-1

961N/30s | d.a.m.

240 MPa

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

215 °C

Temperature of deflection under load HDT/B

ISO 75

0,45 MPa

245 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

255 °C

Coefficient of linear thermal expansion

ISO 11359-1/2

23°C to 80°C | parallel

0,2 10⁻⁴/K

23°C to 80°C | transverse

0,75 10⁻⁴/K

Temperature index for 50% loss of tensile strength

IEC 60216

5.000 h

140 - 150 °C

20.000 h

110 - 130 °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

1,38 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

1,55 %

Water absorption

ISO 62

23°C, saturated

4,5 - 5 %

Molding shrinkage

ISO 294-4

flow

< 0,1 %

transverse

0,6 %

Electrical Properties

Surface resistivity IEC 62631-3-2	d.a.m.	10¹⁷ Ω
Comparative tracking index IEC 60112	Test liquid A	600 V

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 - 300 °C
3	Nozzle temperature	270 - 300 °C
4	Melt temperature	280 - 300 °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