

AKROLOY®

PA GF 50 8 black (6732)

PA66+PA6I/6T GF50

AKROLOY® PA GF 50 8 black (6732) is a 50% glass fiber reinforced, semi-aromatic polyamide blend. It is characterised by lower moisture absorption compared to standard PA 6.6 compounds, thus convincing through very high stiffness and strength even in the conditioned state. The material is therefore perfectly suitable for technical applications with high demands for dimensional stability. Furthermore, it can be used as an alternative for aluminium and zinc diecast alloys. The compound fulfill FDA, EU10/2011.

Features

reduced moisture

Regulatory



Properties

Modulus

17.500 MPa

Strength

260 MPa

Impact

105 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17500 MPa

1 mm/min | conditioned

16000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

260 MPa

5 mm/min | conditioned

185 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,4 %

5 mm/min | conditioned

2,4 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

16500 MPa

2 mm/min | conditioned

15000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

385 MPa

2 mm/min | conditioned

285 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

2,8 %

2 mm/min | conditioned

2,9 %

Charpy impact strength

ISO 179-1/1eU

23°C d.a.m.	105 kJ/m ²
23°C conditioned	105 kJ/m ²
-30°C d.a.m.	95 kJ/m ²
-30°C conditioned	95 kJ/m ²

Charpy notched impact strength

ISO 179-1/1eA

23°C d.a.m.	17 kJ/m ²
23°C conditioned	17 kJ/m ²
-30°C d.a.m.	17 kJ/m ²
-30°C conditioned	17 kJ/m ²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa	245 °C
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Temperature of deflection under load HDT/C

ISO 75

8 MPa	185 °C
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Melting temperature

ISO 11357-3

DSC, 10K/min	255 °C
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General Properties

Density

ISO 1183

23°C	1,56 g/cm ³
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Humidity absorption

ISO 1110

70°C, 62% r.H.	1,3 - 1,5 %
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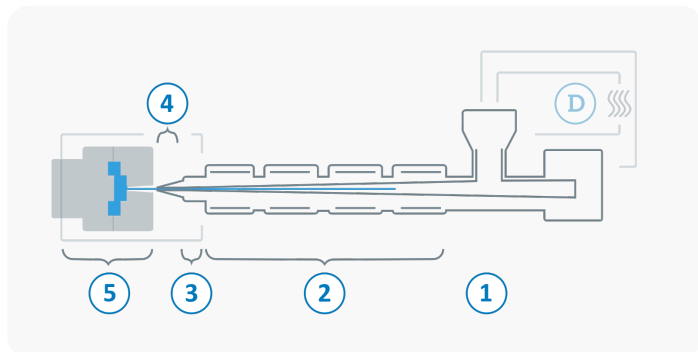
Molding shrinkage

ISO 294-4

flow	0,1 - 0,3 %
transverse	0,3 - 0,5 %

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