

AKROLOY®

PA GF 50 grey (3807)

PA66 + PA6I/6T GF50

AKROLOY® PA GF 50 grey (3807) is a 50% glass fibre reinforced, semi-aromatic polyamide blend with very high stiffness and strength.

Features

reduced moisture metal substitution

Properties

Modulus

17.200 MPa

Strength

250 MPa

Impact

105 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17200 MPa

1 mm/min | conditioned

16500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

250 MPa

5 mm/min | conditioned

220 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,7 %

5 mm/min | conditioned

3 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

13200 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

360 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

3,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

105 kJ/m²

23°C | conditioned

100 kJ/m²

-30°C | d.a.m.

95 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

16 kJ/m²

23°C | conditioned

17 kJ/m²

-30°C | d.a.m.

15 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

221 °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

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

1,59 g/cm³

Molding shrinkage

ISO 294-4

flow

0,2 %

transverse

0,6 %

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