

AKROMID®

A3 GF 50 4 black (7282)

PA66 GF50

AKROMID® A3 GF 50 4 black (7282) is a 50% glass fibre reinforced, hydrolysis/chemical stabilised polyamide 6.6 with very high rigidity and strength

Features

heat stabilised 160 hydrolysis / chemically stabilised

Properties

Modulus

17.000 MPa

Strength

250 MPa

Impact

110 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17000 MPa

1 mm/min | conditioned

13000 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

250 MPa

5 mm/min | conditioned

180 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,0 %

5 mm/min | conditioned

4,0 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

15500 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

380 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

110 kJ/m²

23°C | conditioned

115 kJ/m²

-30°C | d.a.m.

110 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

20 kJ/m²

23°C | conditioned

25 kJ/m²

Thermal Properties

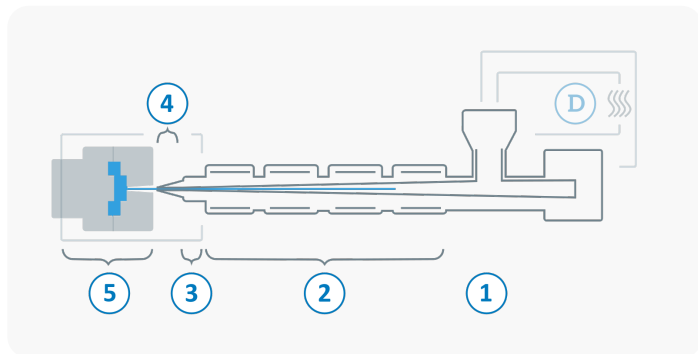
Temperature of deflection under load HDT/A ISO 75	1,8 MPa	260 °C
Melting temperature ISO 11357-3	DSC, 10K/min	262 °C
Temperature index for 50% loss of tensile strength IEC 60216	5.000 h	160 °C

General Properties

Density ISO 1183	23°C	1,57 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,3 - 1,5 %
Water absorption ISO 62	23°C, saturated	3,7 - 4,3 %
Molding shrinkage ISO 294-4	flow	0,1 - 0,3 %
	transverse	0,5 - 0,7 %

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 - 310 °C
4	Melt temperature	280 - 300 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min