

AKROMID®

A3 GF 50 8 natural (7291)

PA66 GF50

AKROMID® A3 GF 50 8 natural (7291) is 50% glass fiber reinforced PA6.6 with very high rigidity and strength. The material corresponds to the European food guideline EU 10/2011 and to the American FDA 21 CFR. This grade is suitable for parts of kitchen and household appliances.

Regulatory



Properties

Modulus

17.400 MPa

Strength

265 MPa

Impact

115 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17400 MPa

1 mm/min | conditioned

13400 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

265 MPa

5 mm/min | conditioned

190 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,9 %

5 mm/min | conditioned

3,9 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

115 kJ/m²

23°C | conditioned

120 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

24 kJ/m²

23°C | conditioned

29 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

260 °C

Melting temperature	DSC, 10K/min	262 °C
ISO 11357-3		

General Properties

Density	23°C	1,57 g/cm³
ISO 1183		

Humidity absorption	70°C, 62% r.H.	1,3 - 1,5 %
ISO 1110		

Water absorption	23°C, saturated	3,7 - 4,3 %
ISO 62		

Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	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

Diagrams

