

AKROMID® PRELIMINARY

A3 GF 30 4 natural (3752)

PA66 GF30

AKROMID® A3 GF 30 4 natural (3752) is a 30% glass fibre reinforced, hydrolysis-/ chemical stabilised polyamide 6.6 with high stiffness and strength and light inherent color

Properties

Modulus

11.500 MPa

Strength

210 MPa

Impact

100 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

11500 MPa

1 mm/min | conditioned

6800 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

210 MPa

5 mm/min | conditioned

140 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

5 mm/min | conditioned

7 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

10000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

310 MPa

Flexural strain at break

ISO 178

2 mm/min | d.a.m.

4,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

100 kJ/m²

23°C | conditioned

100 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

15 kJ/m²

23°C | conditioned

20 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	255 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	265 °C
Temperature of deflection under load HDT/C ISO 75	8 MPa	210 °C
Melting temperature ISO 11357-3	DSC, 10K/min	262 °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	0,9 10 ⁻⁴ /K

Flammability

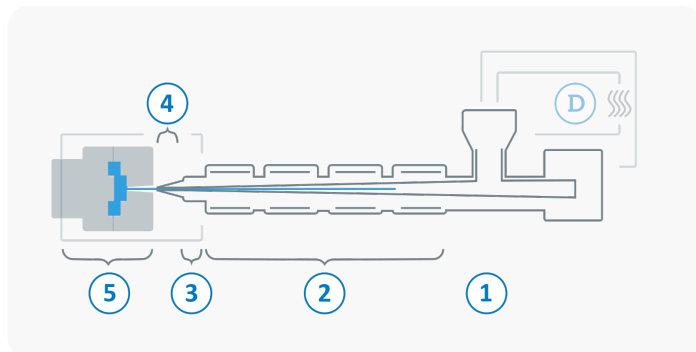
Flammability UL 94	1,6 mm Wall thickness	HB Class
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	1,36 g/cm ³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,9 %
Water absorption ISO 62	23°C, saturated	4,5 %
Molding shrinkage ISO 294-4	flow	0,2 ± 0,1 %
	transverse	0,8 ± 0,1 %

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