

AKROMID®

A3 GF 60 1 natural (2396)

PA66 GF60

AKROMID® A3 GF 60 1 natural (2396) is a 60% glass fibre reinforced and heat stabilised polyamide 6.6 with very high rigidity and strength and light inherent color.

Features

heat stabilised 130

Properties

Modulus

20.500 MPa

Strength

260 MPa

Impact

102 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

20500 MPa

1 mm/min | conditioned

15800 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

260 MPa

5 mm/min | conditioned

190 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2 %

5 mm/min | conditioned

2,5 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

19800 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

400 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

102 kJ/m²

23°C | conditioned

105 kJ/m²

-30°C | d.a.m.

97 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

19 kJ/m²

23°C | conditioned

22 kJ/m²

-30°C | d.a.m.

19 kJ/m²

Ball indentation hardness	961N/30s d.a.m.	330 MPa
ISO 2039-1		

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	260 °C
ISO 75		

Temperature of deflection under load HDT/B	0,45 MPa	260 °C
ISO 75		

Temperature of deflection under load HDT/C	8 MPa	235 °C
ISO 75		

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

Flammability

Flammability	0,8 mm Wall thickness	HB Class
UL 94		

GWFI	1,6 mm Wall thickness	650 °C
IEC 60695-2-12		

Burning rate (<100 mm/min)	> 1 mm Thickness	+
FMVSS 302		

General Properties

Density	23°C	1,71 g/cm³
ISO 1183		

Humidity absorption	70°C, 62% r.H.	1,0 - 1,2 %
ISO 1110		

Water absorption	23°C, saturated	3,2 - 3,7 %
ISO 62		

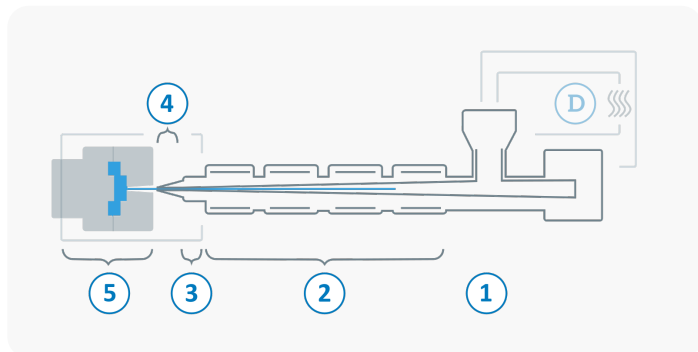
Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,4 - 0,6 %

Electrical Properties

Volume resistivity	d.a.m.	$10^{13} \Omega \times \text{cm}$
IEC 62631-3-1	conditioned	$10^{10} \Omega \times \text{cm}$
Surface resistivity	d.a.m.	$10^{12} \Omega$
IEC 62631-3-2	conditioned	$10^{10} \Omega$
Comparative tracking index	Test liquid A	600 V
IEC 60112		

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

