

AKROMID®

A3 GF 20 1 black (2307)

PA66 GF20

AKROMID® A3 GF 20 1 black (2307) is a 20% glass fibre reinforced and heat stabilised polyamide 6.6 with medium stiffness and strength.

Features

heat stabilised 130

Properties

Modulus

7.200 MPa

Strength

160 MPa

Impact

60 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

7200 MPa

1 mm/min | conditioned

4600 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

160 MPa

5 mm/min | conditioned

100 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,5 %

5 mm/min | conditioned

8 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

7000 MPa

2 mm/min | conditioned

5000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

235 MPa

2 mm/min | conditioned

165 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

60 kJ/m²

23°C | conditioned

86 kJ/m²

-30°C | d.a.m.

48 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

9 kJ/m²

23°C | conditioned

11 kJ/m²

-30°C | d.a.m.

8 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	250 °C
Temperature of deflection under load HDT/B ISO 75	0,45 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 20.000 h	160 - 175 °C 130 - 150 °C

Flammability

Flammability UL 94	0,8 mm Wall thickness	HB Class
GWFI IEC 60695-2-12	1,6 mm Wall thickness	650 °C
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	1,28 g/cm ³
Humidity absorption ISO 1110	70°C, 62% r.H.	2,3 - 2,5 %
Water absorption ISO 62	23°C, saturated	6,7 - 7,2 %
Molding shrinkage ISO 294-4	flow transverse	0,3 % 1,3 %

Electrical Properties

Volume resistivity IEC 62631-3-1	d.a.m.	10 ¹³ Ω x cm
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Surface resistivity

IEC 62631-3-2

d.a.m.

$10^{12} \Omega$

Comparative tracking index

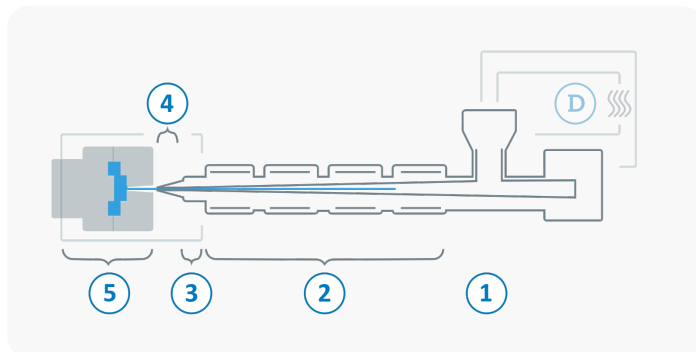
IEC 60112

Test liquid A

600 V

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

