

AKROMID®

A3 GF 50 HU grey (6601)

PA66 GF50

AKROMID® A3 GF 50 HU grey (6601) is a 50% glass fiber reinforced polyamide 6.6 in grey (similar to RAL 7035). It is characterised by a very high stiffness and strength. Furthermore, the material is heat stabilised and therefore perfectly suitable for technical parts in industrial engineering, in the automotive industry or for household appliances. The material is listed at UL in all colors.

Features

heat stabilised 130

Regulatory



Properties

Modulus

17.000 MPa

Strength

255 MPa

Impact

110 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17000 MPa

1 mm/min | conditioned

12500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

255 MPa

5 mm/min | conditioned

180 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,9 %

5 mm/min | conditioned

3,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

110 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

20 kJ/m²

UV Exposure and Water Immersion

UL 746C



f2

Thermal Properties

RTI electrical

UL 746B

UL	0,4mm Wall thickness	125 °C
UL	0,8mm Wall thickness	125 °C
UL	1,6mm Wall thickness	130 °C
UL	3,2mm Wall thickness	130 °C

RTI impact

UL 746B

UL	0,8mm Wall thickness	120 °C
UL	1,6mm Wall thickness	120 °C
UL	3,2mm Wall thickness	120 °C

RTI strength

UL 746B

UL	0,8mm Wall thickness	130 °C
UL	1,6mm Wall thickness	130 °C
UL	3,2mm Wall thickness	130 °C

Melting temperature

ISO 11357-3

DSC, 10K/min	262 °C
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Flammability

Flammability

UL 94

UL	0,8 mm Wall thickness	HB Class
UL	1,6 mm Wall thickness	HB Class
UL	3,2 mm Wall thickness	HB Class

HWI

UL 746A

UL	0,4 mm Wall thickness	4 PLC
UL	0,8 mm Wall thickness	4 PLC
UL	1,6 mm Wall thickness	4 PLC
UL	3,2 mm Wall thickness	4 PLC

HAI

UL 746A

UL	0,4 mm Wall thickness	0 PLC
UL	0,8 mm Wall thickness	0 PLC
UL	1,6 mm Wall thickness	0 PLC
UL	3,2 mm Wall thickness	0 PLC

General Properties

Density

ISO 1183

23°C	1,58 g/cm ³
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Humidity absorption

ISO 1110

70°C, 62% r.H.	1,3 - 1,5 %
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Water absorption

ISO 62

23°C, saturated	3,7 - 4,3 %
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Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,5 - 0,7 %

Electrical Properties

Volume resistivity	UL d.a.m.	10¹¹ Ω x cm
IEC 62631-3-1		

Comparative tracking index	UL	0 PLC
ASTM D3638		

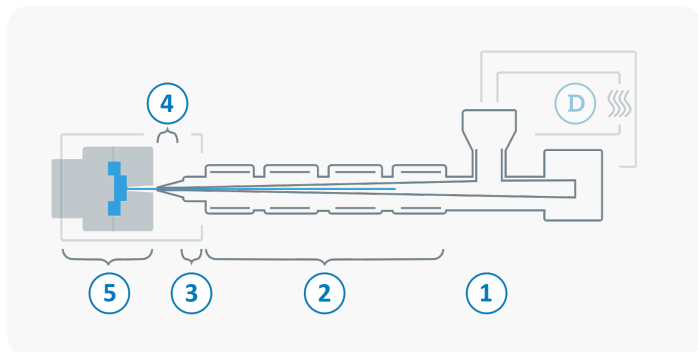
Dielectric strength	UL 3 mm	12 kV/mm
IEC 60243		

High voltage arc tracking rate (HVTR)	UL	1 PLC
UL 746A		

High Volt, Low Current Arc Resistance	UL	5 PLC
ASTM D495		

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

