

AKROMID®

A3 GF 50 HU grey (8941)

PA66 GF50

AKROMID® A3 GF 50 HU grey (8941) is a 50% glass fibre reinforced and heat stabilized PA6.6, coloured in grey similar to RAL 7035. The material has a UL 94 HB listing in all colors, including RTI values. It is characterized by good flowability and improved surface quality. This grade is laser markable and was specially developed for E&E applications such as housing components.

Features

heat stabilised 130 laser markable E&E
household appliances E-Mobility

Regulatory



Properties

Modulus

17.500 MPa

Strength

235 MPa

Impact

90 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

235 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

2,4 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

90 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	130 °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/cm³
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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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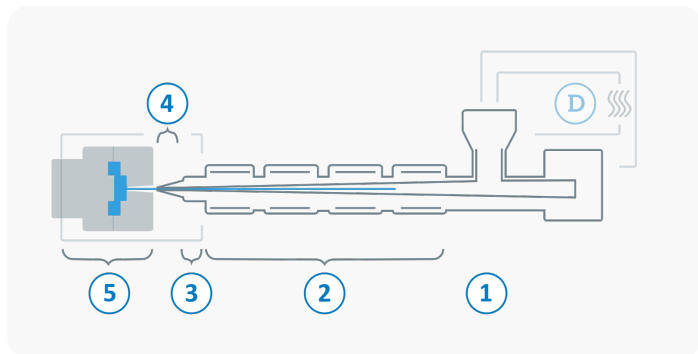
Molding shrinkage	flow	0,1 - 0,3 %
ISO 294-4	transverse	0,5 - 0,7 %

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