

# AKROMID®

B3 GF 50 natural (4301)

PA6 GF50

AKRO-PLASTIC GmbH

Member of the Feddersen Group

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## Datasheet

### Description

AKROMID® B3 GF 50 natural (4301) is a 50% glass fibre reinforced polyamide 6 with very high rigidity and strength and light inherent color

### Applications

Applications are mainly components in mechanical engineering and in the automotive industry

Typical values	Test specification	Method	Unit	Value d.a.m.
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## Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	17000
Tensile stress at break	5 mm/min	ISO 527-2	MPa	240
Elongation at break	5 mm/min	ISO 527-2	%	3
Flexural modulus	2 mm/min	ISO 178	MPa	16000
Flexural strength	2 mm/min	ISO 178	MPa	360
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	100
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	90

## Electrical Properties

Surface resistivity		IEC 60093	Ohm	1,0E+12
Volume resistivity		IEC 60093	Ohm x cm	1,0E+13
CTI	test solution A	IEC 60112		550

## Thermal Properties

Melting Point	DSC, 10K/min	DIN EN 11357-1	°C	220
Heat distortion temperature HDT/A	1,8 MPa	ISO 75	°C	220
Heat distortion temperature HDT/B	0,45 MPa	ISO 75	°C	220
Heat distortion temperature HDT/C	8 MPa	ISO 75	°C	185
Linear thermal expansion	23°C - 80°C, flow	ISO 11359-1/2	10E-4/K	0,11
Linear thermal expansion	23°C - 80°C, transverse	ISO 11359-1/2	10E-4/K	0,94

## Flammability

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

## General Properties

Density	23°C	ISO 1183	g/cm <sup>3</sup>	1,56
Content reinforcement		ISO 1172	%	50
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	1,3 - 1,6
Water absorption	23°C/saturated	ISO 62	%	4,5 - 5,1

## Processing

Flowability	Flowspiral <sup>1</sup>	AKRO	mm	460
Molding shrinkage	flow	ISO 294-4	%	0,2
Molding shrinkage	transverse	ISO 294-4	%	0,9

<sup>1</sup> = mould temperature: 80°C, melt temperature: 270°C, injection pressure: 750 bar, cross section of flow spiral: 7mm x 3,5mm

### AKRO-PLASTIC GmbH

Commercial registered office: Niederrissen

Commercial Register: Koblenz HRB 12227

Managing Director: Andreas Stuber, Dirk Steinbrück

Chairman of the Supervisory Board: Dr. Matthias von Rönn

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