

Datasheet

Description:

AKROMID® B3 GF 50 1 black (2488) is a 50% glass fibre reinforced, heat ageing resistant polyamide 6 with very high rigidity and strength and light inherent color, UL listed.

Applications

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

Typical values	Test specification	Method	Unit	Value	
				d.a.m.	moist.*

Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	17000	10300
Tensile stress at break	5 mm/min	ISO 527-2	MPa	230	145
Elongation at break	5 mm/min	ISO 527-2	%	2,5	4,5
Flexural modulus	2 mm/min	ISO 178	MPa	14900	
Flexural strength	2 mm/min	ISO 178	MPa	340	
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m ²	100	110
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m ²	90	
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m ²	20	26
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m ²	16	
Ball indentation hardness	961/30	ISO 2039-1	MPa	270	

Electrical Properties

Surface resistivity		IEC 60093	Ohm x cm	1,0E+13	1,0E+10
Volume resistivity		IEC 60093	Ohm	1,0E+12	1,0E+10
CTI	test solution A	IEC 60112		600	

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; flow	23°C - 80°C	ISO 11359-1/2	1,0E-4/K	0,11	
Linear thermal expansion; transverse	23°C - 80°C	ISO 11359-1/2	1,0E-4/K	0,94	
Temp. index for 50% loss of tens. strength	5.000 Std.	IEC 216	°C	160 - 175	
Temp. index for 50% loss of tens. strength	20.000 Std.	IEC 216	°C	130 - 150	

Flammability

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

General Properties

Density	23°C	ISO 1183	g/cm ³	1,56	
Content reinforcement/Content Filler		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	

AKROMID®

B3 GF 50 1 black (2488)

PA6 GF50



Think Polyamide

AKRO-PLASTIC GmbH

Member of the Feddersen Group

Continuation

Typical values	Test specification	Method	Unit	Value
				d.a.m.

Processing

Flowability	Flowspiral**	AKRO	mm	430
Molding shrinkage	flow	ISO 294-4	%	0,2
Molding shrinkage	transverse	ISO 294-4	%	0,9

* = specimen acc. ISO 1110 stored

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