AKROMID ®

B3 GF 30 1 natural (2464)

PA6 GF30

AKRO-PLASTIC GmbH
Member of the Feddersen Group

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Datasheet

Description:

AKROMID® B3 GF 30 1 natural (2464) is a 30% glass fibre reinforced, heat stabilised polyamide 6 with 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	10300	6200
Stress at break	5 mm/min	ISO 527-2	MPa	185	110
Strain at break	5 mm/min	ISO 527-2	%	3	5,5
Flexural modulus	2 mm/min	ISO 178	MPa	9200	5800
Flexural strength	2 mm/min	ISO 178	MPa	270	175
Flexural strain at break	2 mm/min	ISO 178	%	3,7	5,6
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m²	95	105
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m²	85	
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m²	13	18
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m²	12	
Ball indentation hardness	961/30	ISO 2039-1	MPa	230	
Electrical Properties					
Volume resistivity		IEC 60093	Ohm x cm	1,0E+13	1,0E+10
Surface resistivity		IEC 60093	Ohm	1,0E+12	1,0E+10
Comparative tracking index	test solution A	IEC 60112		600	
Thermal Properties					
Melting temperature	DSC, 10K/min	DIN EN 11357-1	°C	220	
Temp. of deflection under load HDT/A	1,8 MPa	ISO 75	°C	210	
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	220	
Temp. of deflection under load HDT/C	8 MPa	ISO 75	°C	150	
Coeff. of linear therm. expansion, parallel	23°C - 80°C	ISO 11359-1/2	1,0E-4/K	0,16	
Coeff. of linear therm. expansion, normal	23°C - 80°C	ISO 11359-1/2	1,0E-4/K	0,95	
Temp. index for 50% loss of tens. strength	5.000 Std.	IEC 60216	°C	160 - 175	
Temp. index for 50% loss of tens. strength	20.000 Std.	IEC 60216	°C	130 - 150	

Flammability								
Wall thicknesse			mm	0,4	0,8	1,6	2,0	3,2
Flammability		UL 94	class		HB			
GWFI		IEC 60695-2-12	°C			650		
Burning rate (< 100 mm/min)	> 1 mm thickness	FMVSS 302		+				
General Properties								
Density	23°C	ISO 1183	g/cm³	1,36				
Content reinforcement/Content Filler		ISO 1172	%	30				
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	2,1 - 2,3				
Water absorption	23°C, saturated	ISO 62	%	6,3 - 6,9				

AKRO-PLASTIC GmbH
Commercial registered office: Niederzissen
Commercial Register: Koblenz HRB 12227
Managing Director: Andreas Stuber, Dirk Steinbrück
Chairman of the Supervisory Board: Dr. Matthias von Rönn

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Typical values	Test specification	Method	Unit	Value d.a.m.
Processing				
Flowability	8,4 x 2 mm & **	AKRO	mm	380
Flowability	7 x 3,5 mm & **	AKRO	mm	660
Molding shrinkage	flow	ISO 294-4	%	0,1
Molding shrinkage	transverse	ISO 294-4	%	0,8

* = specimen acc. ISO 1110 stored

** = mould temperature: 80°C, melt temperature: 270°C, injection pressure: 750 bar

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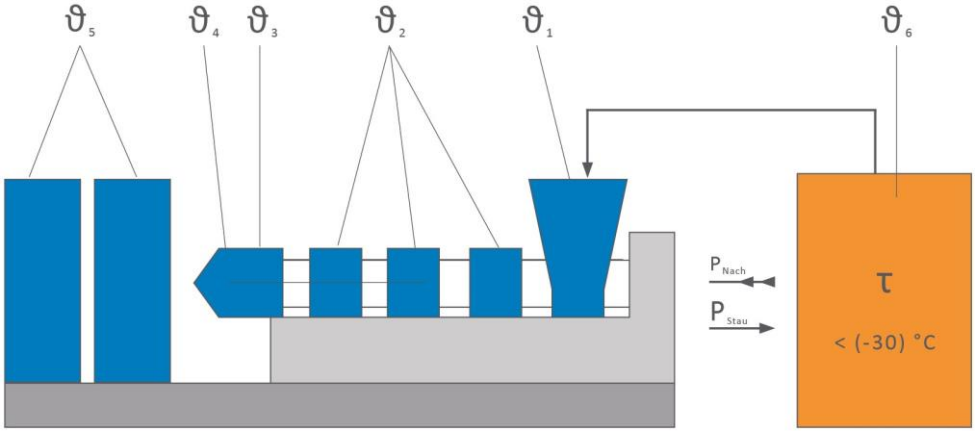
Processing recommendations



ϑ_6	Drying time	h	0 - 4
ϑ_6	Drying temperature	°C	80
	Processing moisture	%	0,02 - 0,1
ϑ_1	Feed section	°C	60 - 80
ϑ_2	Section 1 - Section 4	°C	240 - 290
ϑ_3	Nozzle	°C	260 - 300
ϑ_4	Melt	°C	270 - 290
ϑ_5	Mould	°C	80 - 100
P_{Nach}	Holding pressure, spec.	bar	300 - 800
P_{Stau}	Back pressure, spez.	bar	50 - 150
	Injection speed		medium to high
	Screw speed	m/min	8 - 15

The listed values are recommendations. Higher values should be used for higher glass loadings.
We recommend only de-humidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.

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