AKROMID ®

A3 GF 15 1 black (2382)

PA66 GF15

AKRO-PLASTIC GmbH
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Datasheet

Description:

AKROMID® A3 GF 15 1 black (2382) is a 15% glass fibre reinforced, heat stabilised polyamide 6.6 with medium stiffness and strength and HB-listed at UL.

Applications

Components and housings mainly 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	6400	3700
Stress at break	5 mm/min	ISO 527-2	MPa	140	80
Strain at break	5 mm/min	ISO 527-2	%	3,5	12
Flexural modulus	2 mm/min	ISO 178	MPa	6100	
Flexural strength	2 mm/min	ISO 178	MPa	200	
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m²	45	90
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m²	43	
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m²	7	10
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m²	6	
Ball indentation hardness	961/30	ISO 2039-1	MPa	200	
Electrical Properties					
Volume resistivity		IEC 60093	Ohm x cm	1,0E+13	1,0E+10
Surface resistivity		b.o. 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	262	
Temp. of deflection under load HDT/A	1,8 MPa	ISO 75	°C	245	
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	260	
Coeff. of linear therm. expansion, parallel	23°C - 80°C	ISO 11359-1/2	1,0E-4/K	0,34	
Coeff. of linear therm. expansion, normal	23°C - 80°C	ISO 11359-1/2	1,0E-4/K	1,11	
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 thickness			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	1,24				
Content reinforcement/Content Filler		ISO 1172	%	15				
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	2,5 - 2,7				
Water absorption	23°C, saturated	ISO 62	%	6,7 - 7,3				

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Commercial registered office: Niederzissen
Commercial Register: Koblenz HRB 12227
Managing Director: Andreas Stuber, Dirk Steinbrück
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Typical values	Test specification	Method	Unit	Value d.a.m.
Processing				
Flowability	7 x 3,5 mm & **	AKRO	mm	990
Molding shrinkage	flow	ISO 294-4	%	0,3 - 0,5
Molding shrinkage	transverse	ISO 294-4	%	0,9 - 1,1

b.o.: based on
* = specimen acc. ISO 1110 stored
** = mould temperature: 100°C, melt temperature: 320°C, injection pressure: 750 bar

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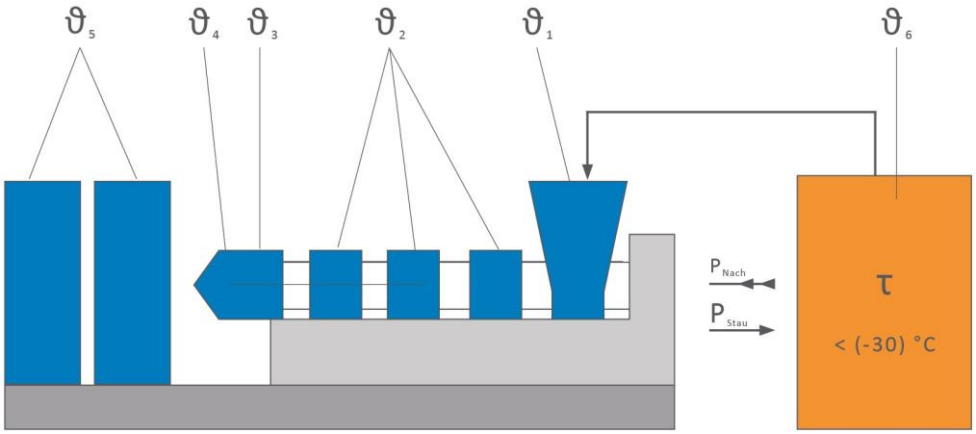
Processing recommendations



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	260 - 300
ϑ_3	Nozzle	°C	270 - 310
ϑ_4	Melt	°C	280 - 300
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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