AKROMID ®

A3 GM 20/10 4 WIT black (4529)

PA66 GF20 + GB10

AKRO-PLASTIC
Think Polyamide
AKRO-PLASTIC GmbH
Member of the Feddersen Group

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Datasheet

Description:

AKROMID® A3 GM 20/10 4 WIT black (4529) is a 20% glass fibre reinforced and 10% glass bead filled, hydrolysis/chemical stabilised polyamide 6.6 with good surface and low warpage.

Applications

Applications are engineering parts, which are produced by water injection technology.

Typical values	Test specification	Method	Unit	Value	
				d.a.m.	moist.*
Mechanical Properties					
Tensile modulus	1 mm/min	ISO 527-2	MPa	8200	5200
Stress at break	5 mm/min	ISO 527-2	MPa	175	100
Strain at break	5 mm/min	ISO 527-2	%	3,7	11,5
Flexural modulus	2 mm/min	ISO 178	MPa	7600	5200
Flexural strength	2 mm/min	ISO 178	MPa	260	170
Flexural strain at break	2 mm/min	ISO 178	%	4,6	7,5
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m²	65	80
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m²	50	48
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m²	9	9,5
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m²	7	6,5
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
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	240	
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	260	
Flammability					
Wall thickness			mm	0,4	0,8	1,6	2,0	3,2
Flammability		UL 94	class		HB			
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	%	2,0	
Rheological Properties					
MVR	275/5	ISO 1133	cm³/10min	6	
Processing					
Molding shrinkage	flow	ISO 294-4	%	0,4	
Molding shrinkage	transverse	ISO 294-4	%	0,8	

b.o.: based on

* = specimen acc. ISO 1110 stored

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

last update: 05.01.2017

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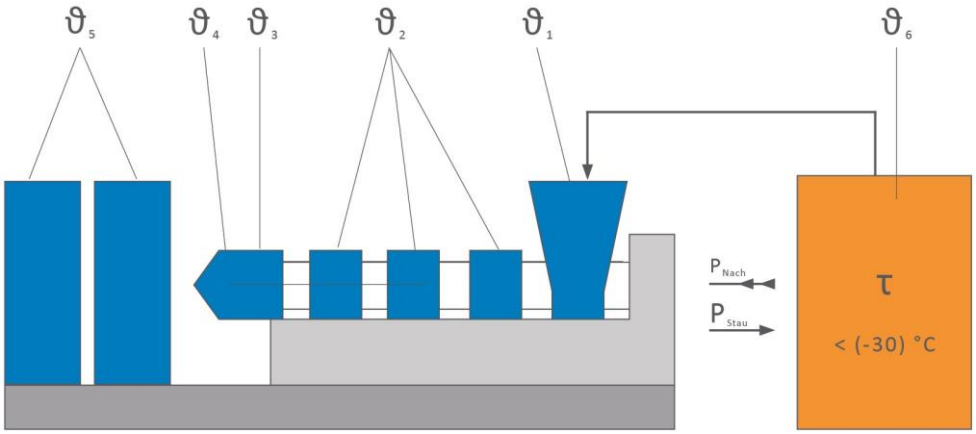
Continuation

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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