AKROMID ®

B3 GF 45 1 black (3851)

PA6 GF45

AKRO-PLASTIC GmbH
Member of the Feddersen Group

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Datasheet

Description:

AKROMID® B3 GF 45 1 black (3851) is a 45% glass fibre reinforced, heat stabilised polyamide 6 with very high rigidity and strength

Applications

Mainly components in mechanical engineering and in the automotive industry and highly stressed parts in the sports and leisure industry

Typical values	Test specification	Method	Unit	Value	
				d.a.m.	moist.*
Mechanical Properties					
Tensile modulus	1 mm/min	ISO 527-2	MPa	14500	8500
Stress at break	5 mm/min	ISO 527-2	MPa	200	140
Strain at break	5 mm/min	ISO 527-2	%	4,5	8,5
Flexural modulus	2 mm/min	ISO 178	MPa	13000	7500
Flexural strength	2 mm/min	ISO 178	MPa	315	200
Flexural strain at break	2 mm/min	ISO 178	%	4,5	6,7
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m²	110	108
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m²	95	108
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m²	20	25
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m²	16	15
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	200	
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	145	
Flammability					
Burning rate (< 100 mm/min)	> 1 mm thickness	FMVSS 302		+	
General Properties					
Density	23°C	ISO 1183	g/cm³	1,5	
Content reinforcement/Content Filler		ISO 1172	%	45	
Processing					
Molding shrinkage	flow	ISO 294-4	%	0,3	
Molding shrinkage	transverse	ISO 294-4	%	0,8	

* = 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

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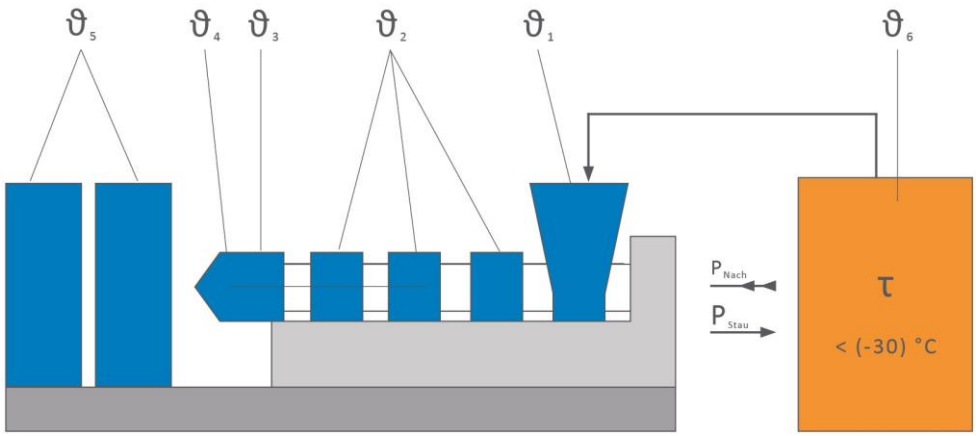
Continuation

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	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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