

Datasheet

Description:

AKROMID® B3 GF 30 S1 natural (1383) is a 30% glass fibre reinforced, cold impact strength polyamide 6 with high stiffness and strength and light inherent color

Applications

Housings and covers for the automotive industry and power tools

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

Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	7500	4200
Stress at break	5 mm/min	ISO 527-2	MPa	125	70
Strain at break	5 mm/min	ISO 527-2	%	6	13
Flexural modulus	2 mm/min	ISO 178	MPa	6400	
Flexural strength	2 mm/min	ISO 178	MPa	190	
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m ²	110	135
Charpy impact strength	-10°C	ISO 179-1/1eU	kJ/m ²	112	
Charpy impact strength	-20°C	ISO 179-1/1eU	kJ/m ²	117	
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m ²	117	
Charpy impact strength	-40°C	ISO 179-1/1eU	kJ/m ²	115	
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m ²	34	42
Charpy notched impact strength	-10°C	ISO 179-1/1eA	kJ/m ²	26	
Charpy notched impact strength	-20°C	ISO 179-1/1eA	kJ/m ²	25	
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m ²	24	
Charpy notched impact strength	-40°C	ISO 179-1/1eA	kJ/m ²	22	

Thermal Properties

Melting temperature	DSC, 10K/min	DIN EN 11357-1	°C	222
Temp. of deflection under load HDT/A	1,8 MPa	ISO 75	°C	200

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/cm ³	1,28
Content reinforcement/Content Filler		ISO 1172	%	30

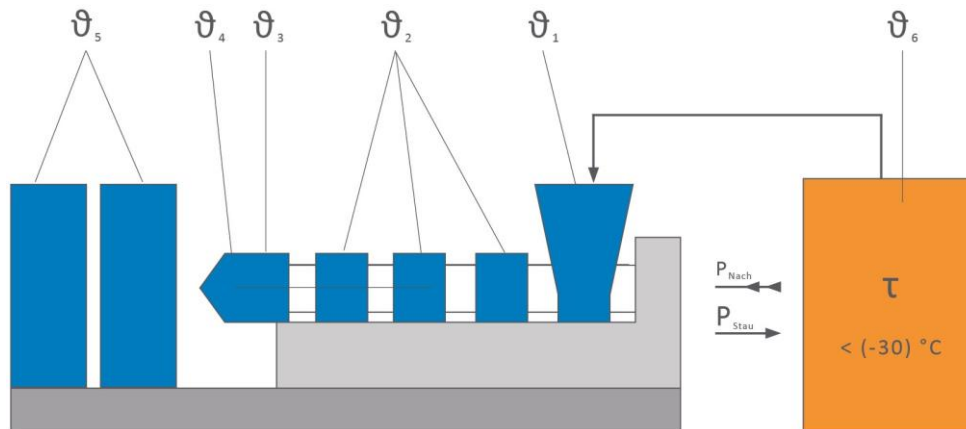
Processing

Molding shrinkage	flow	ISO 294-4	%	0,1 - 0,3
Molding shrinkage	transverse	ISO 294-4	%	0,5 - 0,7

* = specimen acc. ISO 1110 stored

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.