

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

Applications are 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

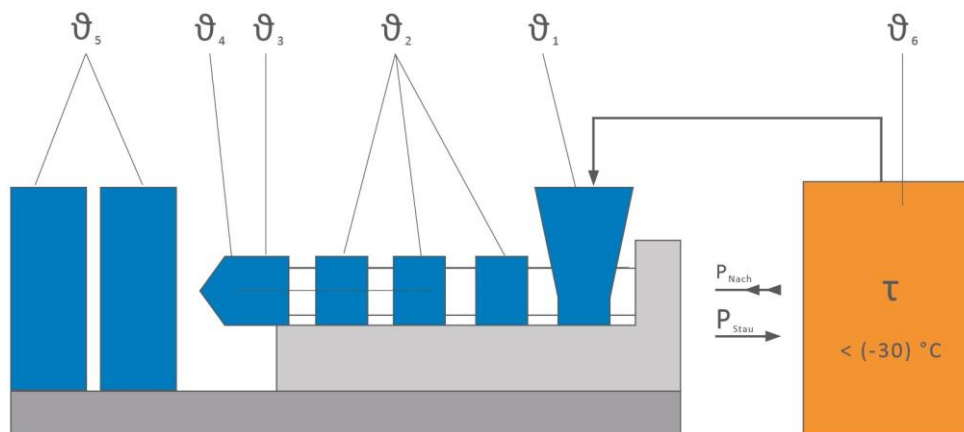
Processing

Molding shrinkage	flow	ISO 294-4	%	0,4
Molding shrinkage	transverse	ISO 294-4	%	0,9

* = 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.