

Preliminary Datasheet

Description:

AKROMID® A3 GK 30 LA black (4624) is a 30% glass bead filled polyamide 6.6 with low warpage, high surface appearance and lasermarkable.

Applications

Highly integrated housings in the appliance industry

Typical values	Test specification	Method	Unit	Value d.a.m.
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Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	5000
Stress at break	5 mm/min	ISO 527-2	MPa	90
Strain at break	5 mm/min	ISO 527-2	%	10
Flexural modulus	2 mm/min	ISO 178	MPa	4200
Flexural strength	2 mm/min	ISO 178	MPa	135
Flexural strain at break	2 mm/min	ISO 178	%	6,5
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m ²	25
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m ²	4

Electrical Properties

Comparative tracking index	test solution A	IEC 60112		500
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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	100
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	225

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

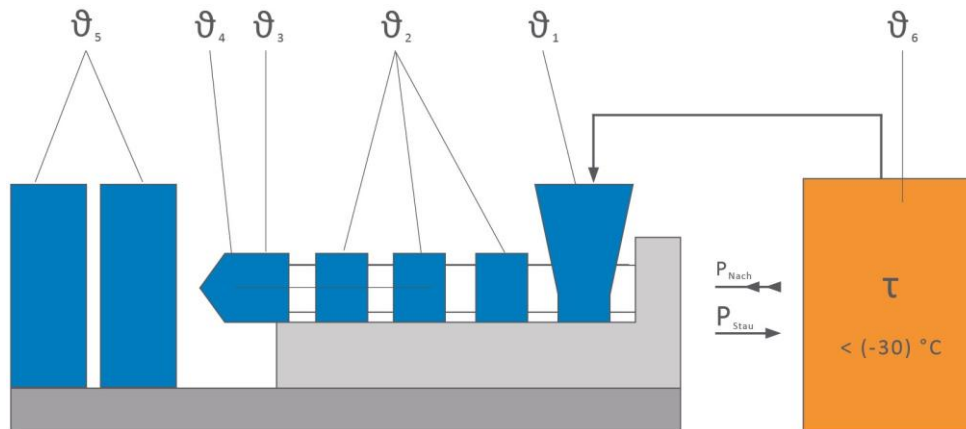
Density	23°C	ISO 1183	g/cm ³	1,35
Content reinforcement/Content Filler		ISO 1172	%	30
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	2
Water absorption	23°C, saturated	ISO 62	%	5,8

Processing

Molding shrinkage	flow	ISO 294-4	%	1,44
Molding shrinkage	transverse	ISO 294-4	%	1,45

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.