

Datasheet

Description:

AKROMID® B3 F0 black 950089 (1813) is an unreinforced polyamide 6 with halogen- and phosphorusfree flame retardant, listed acc. UL 94 at 0,8 mm in all colours, meeting the demand high GWIT of the appliances industry. This material is listed at VDE.

Applications

Housings, fasteners and cable connectors in the electro- and electronic industry

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

Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	4000	1300
Stress at yield	50 mm/min	ISO 527-2	MPa	77	42
Strain at yield	50 mm/min	ISO 527-2	%	3,5	22
Strain at break	50 mm/min	ISO 527-2	%	12	> 100
Flexural modulus	2 mm/min	ISO 178	MPa	3800	1280
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m ²	90	n.b.
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m ²	4	9

Electrical Properties

Volume resistivity		IEC 60093	Ohm x cm	1,0E+13	
Surface resistivity		b.o. IEC 60093	Ohm	1,0E+13	
Comparative tracking index	test solution A	IEC 60112		500	

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	65	
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	180	

Flammability

Wall thickness			mm	0,4	0,8	1,6	2,0	3,2
Flammability		UL 94	class	V0				
GWFI		IEC 60695-2-12	°C	960				
GWIT		IEC 60695-2-13	°C	775				

General Properties

Density	23°C	ISO 1183	g/cm ³	1,17	
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	2,7	

Processing

Molding shrinkage	flow	ISO 294-4	%	1,0 - 1,2	
Molding shrinkage	transverse	ISO 294-4	%	1,1 - 1,3	

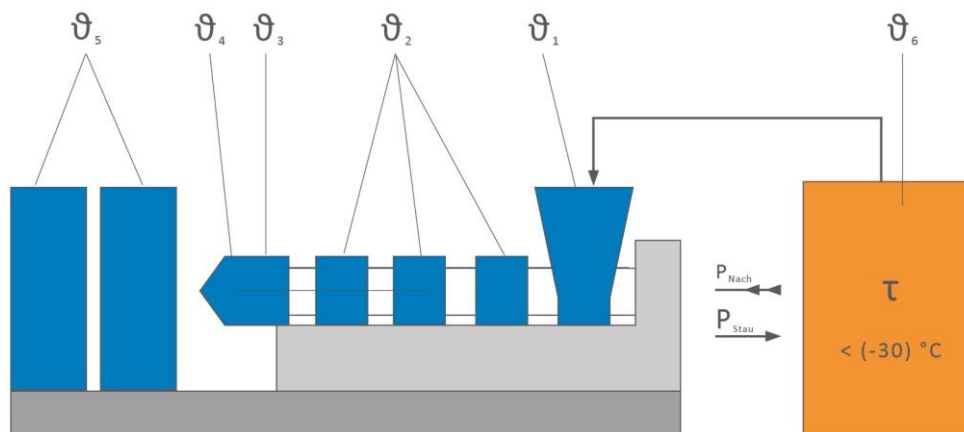
b.o.: based on

n.b. = not broken

* = 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 - 0,08
ϑ_1	Feed section	°C	60 - 80
ϑ_2	Section 1 - Section 4	°C	220 - 260
ϑ_3	Nozzle	°C	230 - 270
ϑ_4	Melt	°C	240 - 270
ϑ_5	Mould	°C	60 - 80
P_{Nach}	Holding pressure, spec.	bar	300 - 800
P_{Stau}	Back pressure, spez.	bar	30 - 100
	Injection speed		medium
	Screw speed	m/min	5 - 10

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.