

Datasheet

Description:

AKROMID® A3 K1 FR black 950089 (2246) is a 25% glass fibre reinforced, halogen- and red phosphorus free flame retardant polyamide 6.6, all color listed at UL and NF F 16-101

Applications

Switch housings in the electric 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	9600
Stress at break	5 mm/min	ISO 527-2	MPa	140
Strain at break	5 mm/min	ISO 527-2	%	2,8
Flexural modulus	2 mm/min	ISO 178	MPa	9500
Flexural strength	2 mm/min	ISO 178	MPa	225
Flexural strain at break	2 mm/min	ISO 178	%	3
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m ²	50
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m ²	> 50
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m ²	10
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m ²	9

Electrical Properties

Comparative tracking index	test solution A	IEC 60112		550
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Thermal Properties

Melting temperature	DSC, 10K/min	DIN EN 11357-1	°C	262
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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		750			
Burning and smoke gas classification		NF F 16-101	class					I3/F2
Oxygen Index		ISO 4589-2	%					34

General Properties

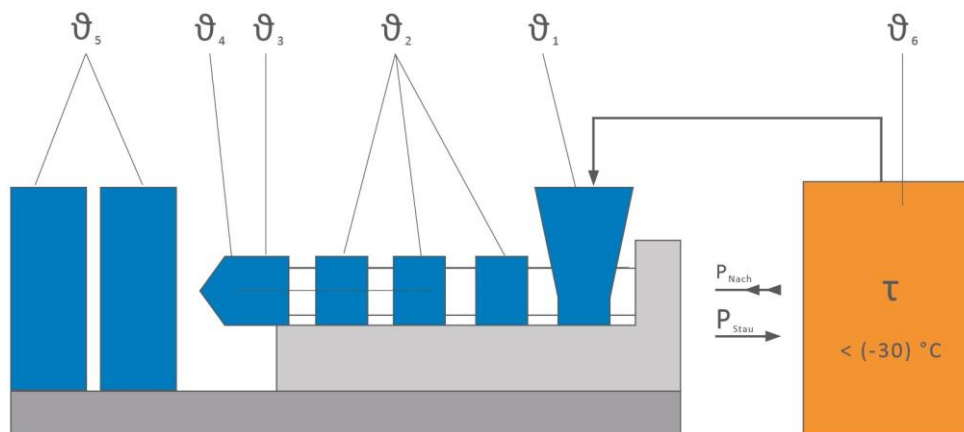
Density	23°C	ISO 1183	g/cm ³	1,34
Content reinforcement/Content Filler		ISO 1172	%	25

Processing

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

Continuation

Processing recommendations



ϑ_6 Drying time	h	2 - 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	260 - 290
ϑ_3 Nozzle	°C	260 - 300
ϑ_4 Melt	°C	270 - 290
ϑ_5 Mould	°C	60 - 100
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.