

AKROMID®

A3 5 black (4701)

PA66



Think Polyamide

AKRO-PLASTIC GmbH

Member of the Feddersen Group

Industriegebiet Brohltal Ost
Im Stiefelfeld 1
D-56651 Niederrissen
Phone +49 2636/9742-0
Fax +49 2636/9742-31
info@akro-plastic.com
www.akro-plastic.com

Datasheet

Description:

AKROMID® A3 5 black (4701) is an unreinforced, high temperature stabilised polyamide 6.6

Applications

Housings and fixtures in the automotive and electric industry

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

Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	3500	1450
Stress at yield	50 mm/min	ISO 527-2	MPa	90	55
Strain at yield	50 mm/min	ISO 527-2	%	4,5	
Strain at break	50 mm/min	ISO 527-2	%	12	≥ 30
Flexural modulus	2 mm/min	ISO 178	MPa	3200	
Flexural strength	2 mm/min	ISO 178	MPa	125	
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m ²	n.b.	n.b.
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m ²	≥ 4,5	11

Thermal Properties

Melting temperature	DSC, 10K/min	DIN EN 11357-1	°C	260
Temp. of deflection under load HDT/A	1,8 MPa	ISO 75	°C	70
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	220

Flammability

Wall thickness			mm	0,4	0,8	1,6	2,0	3,2
Flammability		UL 94	class			V2		
Burning rate (< 100 mm/min)	> 1 mm thickness	FMVSS 302				+		

General Properties

Density	23°C	ISO 1183	g/cm ³	1,14
---------	------	----------	-------------------	------

Processing

Flowability	7 x 3,5 mm & **	AKRO	mm	1270
Molding shrinkage	flow	ISO 294-4	%	1,3 - 1,5
Molding shrinkage	transverse	ISO 294-4	%	1,5 - 1,7

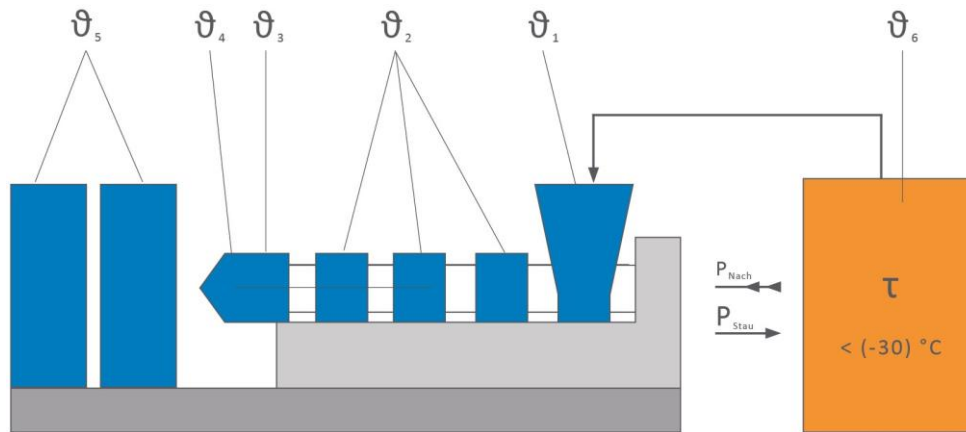
n.b. = not broken

* = specimen acc. ISO 1110 stored

** = mould temperature: 100°C, melt temperature: 320°C, injection pressure: 750 bar

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	40 - 80
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.