

## Datasheet

### Description:

AKROMID® A3 1 S3 15 natural (2892) is an unreinforced, heat stabilised and dry impact modified polyamide 6.6 with light inherent color

### Applications

Connecting and fixing systems, used at elevated temperatures in the automotive and electro industry

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

### Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	2700	1300
Stress at yield	50 mm/min	ISO 527-2	MPa	63	45
Strain at yield	50 mm/min	ISO 527-2	%	7	
Strain at break	50 mm/min	ISO 527-2	%	> 35	> 100
Nominal strain at break	50 mm/min	ISO 527-2	%	≥ 30	
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	n.b.	n.b.
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	15	95
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	10	
Izod notched impact strength	23°C	ISO 180/1A	kJ/m <sup>2</sup>	15	
Izod notched impact strength	-20°C	ISO 180/1A	kJ/m <sup>2</sup>	12	
Izod notched impact strength	-40°C	ISO 180/1A	kJ/m <sup>2</sup>	12	
Ball indentation hardness	358/30	ISO 2039-1	MPa	93	

### Electrical Properties

Volume resistivity		IEC 60093	Ohm x cm	1,0E+15
Surface resistivity		b.o. IEC 60093	Ohm	1,0E+14
Comparative tracking index	test solution A	IEC 60112		600

### 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	70
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	213

### 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 <sup>3</sup>	1,1
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	2,1

### Processing

Flowability	7 x 3,5 mm & **	AKRO	mm	810
Molding shrinkage	flow	ISO 294-4	%	1,3 - 1,5
Molding shrinkage	transverse	ISO 294-4	%	1,5 - 1,7

b.o.: based on

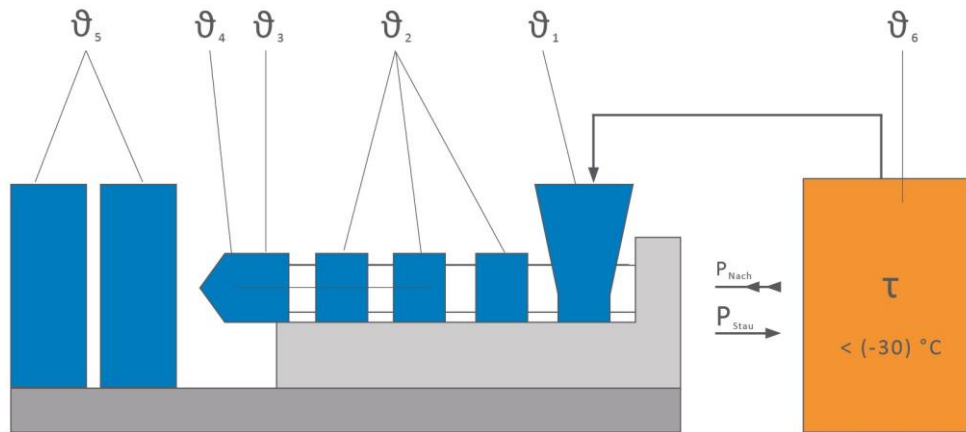
n.b. = not broken

\* = specimen acc. ISO 1110 stored

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

### Continuation

### Processing recommendations



$\vartheta_6$	Drying time	h	0 - 4
$\vartheta_6$	Drying temperature	°C	80
	Processing moisture	%	0,02 - 0,1
$\vartheta_1$	Feed section	°C	60 - 80
$\vartheta_2$	Section 1 - Section 4	°C	260 - 300
$\vartheta_3$	Nozzle	°C	270 - 310
$\vartheta_4$	Melt	°C	280 - 300
$\vartheta_5$	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.