

#### Datasheet

#### Description:

AKROMID® A3 GF 60 1 natural (2396) is a 60% glass fibre reinforced and heat stabilised polyamide 6.6 with very high rigidity and strength and light inherent color, UL listed.

#### Applications

Components in mechanical engineering and in the automotive industry

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

#### Mechanical Properties

Tensile modulus	1 mm/min	ISO 527-2	MPa	20500	15800
Stress at break	5 mm/min	ISO 527-2	MPa	260	190
Strain at break	5 mm/min	ISO 527-2	%	2	2,5
Flexural modulus	2 mm/min	ISO 178	MPa	19800	
Flexural strength	2 mm/min	ISO 178	MPa	400	
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	102	105
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	97	
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	19	22
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	19	
Ball indentation hardness	961/30	ISO 2039-1	MPa	330	

#### Electrical Properties

Volume resistivity		IEC 60093	Ohm x cm	1,0E+13	1,0E+10
Surface resistivity		b.o. IEC 60093	Ohm	1,0E+12	1,0E+10
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	260	
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	260	
Temp. of deflection under load HDT/C	8 MPa	ISO 75	°C	235	

#### Flammability

Wall thickness			mm	0,4	0,8	1,6	3,2
Flammability		UL 94	class		HB		
GWFI		IEC 60695-2-12	°C			650	
Burning rate (< 100 mm/min)	> 1 mm thickness	FMVSS 302					+

#### General Properties

Density	23°C	ISO 1183	g/cm <sup>3</sup>	1,71		
Content reinforcement/Content Filler		ISO 1172	%	60		
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	1,0 - 1,2		
Water absorption	23°C, saturated	ISO 62	%	3,2 - 3,7		

#### Processing

Flowability	7 x 3,5 mm & **	AKRO	mm	530		
Molding shrinkage	flow	ISO 294-4	%	0,4		
Molding shrinkage	transverse	ISO 294-4	%	0,8		

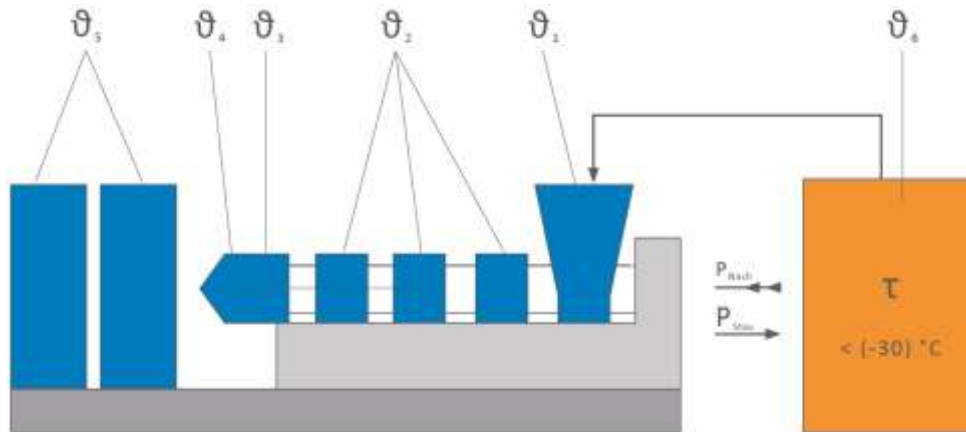
b.o.: based on

\* = 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	80 - 100
$P_{\text{Nach}}$	Holding pressure, spec.	bar	300 - 800
$P_{\text{Stau}}$	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.