

#### Datasheet

#### Description:

AKROMID® A3 GK 40 1 natural (1803) is a 40% glass bead reinforced, heat stabilised polyamide 6.6 with low warpage, high surface appearance and light inherent color

#### Applications

Highly integrated housings in the appliance 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	5500
Stress at break	5 mm/min	ISO 527-2	MPa	95
Strain at break	5 mm/min	ISO 527-2	%	6
Flexural modulus	2 mm/min	ISO 178	MPa	5800
Flexural strength	2 mm/min	ISO 178	MPa	145
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	25
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	3

#### Electrical Properties

Volume resistivity		IEC 60093	Ohm x cm	1,0E+15
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	262
Temp. of deflection under load HDT/A	1,8 MPa	ISO 75	°C	120
Temp. of deflection under load HDT/B	0,45 MPa	ISO 75	°C	230

#### Flammability

Wall thickness			mm	0,4	0,8	1,6	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>	1,44
Content reinforcement/Content Filler		ISO 1172	%	40
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	1,8
Water absorption	23°C, saturated	ISO 62	%	5,1

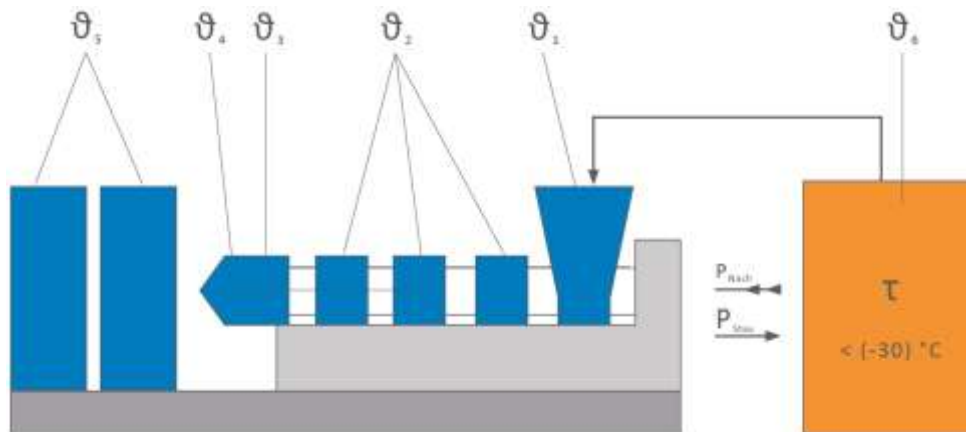
#### Processing

Molding shrinkage	flow	ISO 294-4	%	1,3
Molding shrinkage	transverse	ISO 294-4	%	1,6

b.o.: based on

#### 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
$P_{Nach}$ 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.