

**Datasheet****Description:**

AKROMID® B3 GK 30 black (1827) is a 30% glass bead filled polyamide 6 with low warpage and high surface appearance

**Applications**

Housings and covers in the automotive-, electro- and furniture industry

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

**Mechanical Properties**

Tensile modulus	1 mm/min	ISO 527-2	MPa	4500	2000
Stress at break	5 mm/min	ISO 527-2	MPa	75	40
Strain at break	5 mm/min	ISO 527-2	%	> 3,5	> 25
Flexural modulus	2 mm/min	ISO 178	MPa	3300	
Flexural strength	2 mm/min	ISO 178	MPa	110	
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m <sup>2</sup>	20	40
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m <sup>2</sup>	3	5
Ball indentation hardness	961/30	ISO 2039-1	MPa	180	

**Thermal Properties**

Melting temperature	DSC, 10K/min	DIN EN 11357-1	°C	222	
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	185	
Vicat softening temperature B50	50 K/h	ISO 306	°C	205	

**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>	1,34	
Content reinforcement/Content Filler		ISO 1172	%	30	
Humidity absorption	70°C, 62% r.h.	ISO 1110	%	2,1	
Water absorption	23°C, saturated	ISO 62	%	6,5	

**Processing**

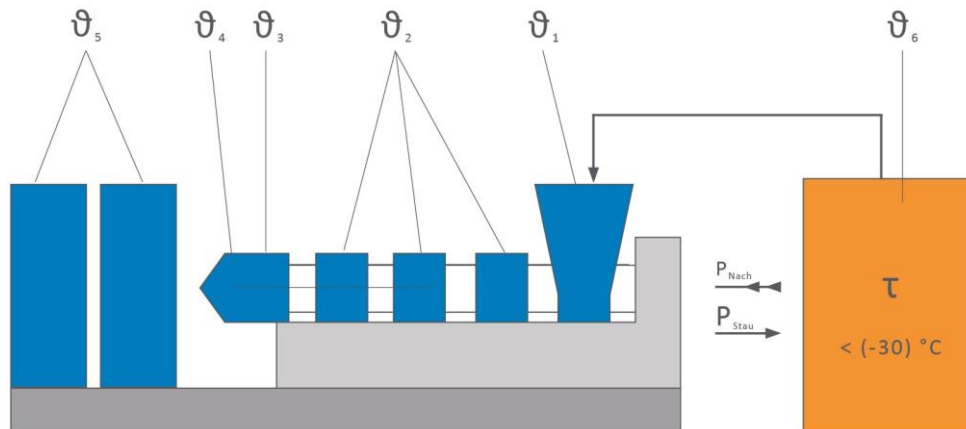
Flowability	8,4 x 1 mm & **	AKRO	mm	120	
Flowability	8,4 x 2 mm & **	AKRO	mm	360	
Molding shrinkage	flow	ISO 294-4	%	1,1	
Molding shrinkage	transverse	ISO 294-4	%	1,2	

\* = specimen acc. ISO 1110 stored

\*\* = mould temperature: 80°C, melt temperature: 270°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	240 - 290
$\vartheta_3$	Nozzle	°C	260 - 300
$\vartheta_4$	Melt	°C	270 - 290
$\vartheta_5$	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.