

PA6.6 – Polyamide 6.6 PA66 GB40

AKROMID® A3 GK 40 1 black (1804)

Tensile modulus

5500 MPa1 mm/min
ISO 527-2

Stress at break

95 MPa5 mm/min
ISO 527-2

Charpy impact strength

25 kJ/m²23 °C
ISO 179-1/eU

AKROMID® A3 GK 40 1 black (1804) is a 40% glass bead reinforced, heat stabilised polyamide 6.6 with low warpage and high surface appearance

Typical applications

Highly integrated housings in the appliance industry

**Mechanical Properties**

Tensile modulus (1 mm/min ISO 527-2) d.a.m.	5500 MPa
Stress at break (5 mm/min ISO 527-2) d.a.m.	95 MPa
Strain at break (5 mm/min ISO 527-2) d.a.m.	6 %
Flexural modulus (2 mm/min ISO 178) d.a.m.	5800 MPa
Flexural strength (2 mm/min ISO 178) d.a.m.	145 MPa
Charpy impact strength (23 °C ISO 179-1/eU) d.a.m.	25 kJ/m ²
Charpy notched impact strength (23 °C ISO 179-1/eA) d.a.m.	3 kJ/m ²

**Thermal Properties**

Temperature of deflection under load HDT/A (1,8 MPa ISO 75)	120 °C
Temperature of deflection under load HDT/B (0,45 MPa ISO 75)	230 °C
Melting temperature (DSC, 10K/min DIN EN 11357-1)	262 °C

**Flammability**

Burning rate (UL 94) 1,6mm Wall thickness	HB Class
Burning rate (<100 mm/min) (> 1 mm Thickness FMVSS 302)	+

Disclaimer:

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**General properties**

Density (23 °C ISO 1183)	1,44 g/cm ³
Humidity absorption (70 °C, 62% r.H. ISO 1110)	1,8 %
Water absorption 23 °C saturated (23 °C, saturated ISO 62)	5,1 %
Molding shrinkage (flow ISO 294-4)	1,0 %
Molding shrinkage (transverse ISO 294-4)	1,2 %

**Electrical Properties**

Volume resistivity (IEC 60093) d.a.m.	1,0E+15 Ohm x cm
Surface resistivity (acc. to IEC 60093) d.a.m.	1,0E+13 Ohm
Comparative tracking index (Test liquid A IEC 60112)	500 V

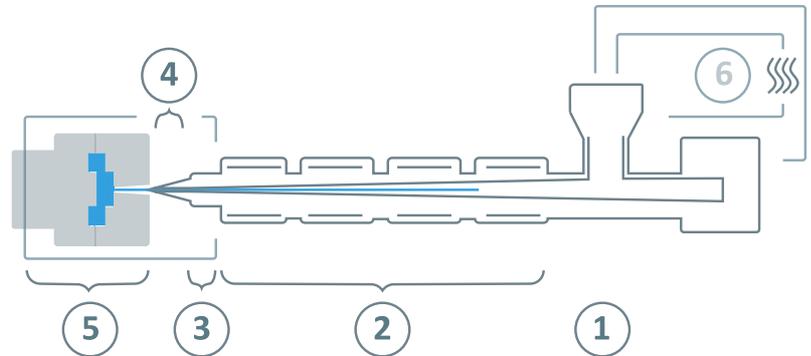
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AKROMID® A3 GK 40 1 black (1804)**Processing information**

The listed values are recommendations. Higher values should be used for higher glass loadings. We recommend only dehumidifying or vacuum dryers. Extensive drying can cause filling problems and surface defects.



⑥	Drying time	0 - 4 h
	Drying temperature ($\tau \leq -30^\circ\text{C}$)	80 °C
	Processing moisture	0,02 - 0,1%
①	Feed section	60 - 80 °C
②	Temperature zone 1 - Zone 4	260 - 300 °C
③	Nozzle temperature	270 - 310 °C
④	Melt temperature	280 - 300 °C
⑤	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

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