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PA6.6 – Polyamide 6.6 PA66-I

AKROMID® A3 S1 black (1071)

Tensile modulus	Stress at yield	Charpy impact strength
2000 MPa	**50 MPa**	**n.b. kJ/m²**
1 mm/min	**50 mm/min**	**23°C**
ISO 527-2	ISO 527-2	ISO 179-1/1eU

AKROMID® A3 S1 black 950089 (1071) is an unreinforced, cold impact modified polyamide 6.6

Typical applications

Connectors and fixtures for the automotive electro and furniture industry, if high impact resistance at low temperatures is required.

Mechanical Properties

Tensile modulus (1 mm/min | ISO 527-2)	
d.a.m.	2000 MPa
conditioned	900 MPa
Stress at yield (50 mm/min | ISO 527-2)	
d.a.m.	50 MPa
conditioned	40 MPa
Strain at yield (50 mm/min | ISO 527-2)	
d.a.m.	4,8 %
Strain at break (50 mm/min | ISO 527-2)	
d.a.m.	> 50 %
conditioned	> 100 %
Flexural modulus (2 mm/min | ISO 178)	
d.a.m.	1950 MPa
Charpy impact strength (23°C | ISO 179-1/1eU)	
d.a.m.	n.b. kJ/m²
conditioned	n.b. kJ/m²
Charpy impact strength (-30°C | ISO 179-1/1eU)	
d.a.m.	n.b. kJ/m²
conditioned	n.b. kJ/m²
Charpy impact strength (-40°C | ISO 179-1/1eU)	
d.a.m.	n.b. kJ/m²
Charpy notched impact strength (23°C | ISO 179-1/1eA)	
d.a.m.	> 80 kJ/m²
conditioned	> 100 kJ/m²
Charpy notched impact strength (-30°C | ISO 179-1/1eA)	
d.a.m.	35 kJ/m²
conditioned	35 kJ/m²
Charpy notched impact strength (-40°C | ISO 179-1/1eA)	
d.a.m.	35 kJ/m²
Ball indentation hardness (358N/30s | ISO 2039-1)	
d.a.m.	80 MPa

Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa | ISO 75)	70 °C
Temperature of deflection under load HDT/B (0,45 MPa | ISO 75)	152 °C
Melting temperature (DSC, 10K/min | DIN EN 11357-1)	262 °C

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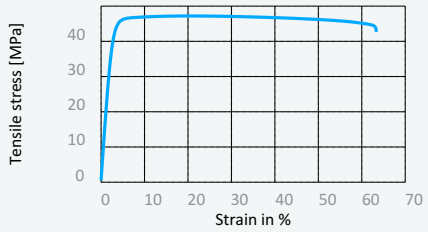
Stress strain chart at 23°C



Flammability

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

General properties

Density (23°C | ISO 1183)	1,07 g/cm³
Humidity absorption (70°C, 62% r.F. | ISO 1110)	2,0 %
Molding shrinkage (flow | ISO 294-4)	1,3 - 1,5 %
Molding shrinkage (transverse | ISO 294-4)	1,5 - 1,7 %

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+14 Ohm
Comparative tracking index (Test liquid A | IEC 60112)	600 V

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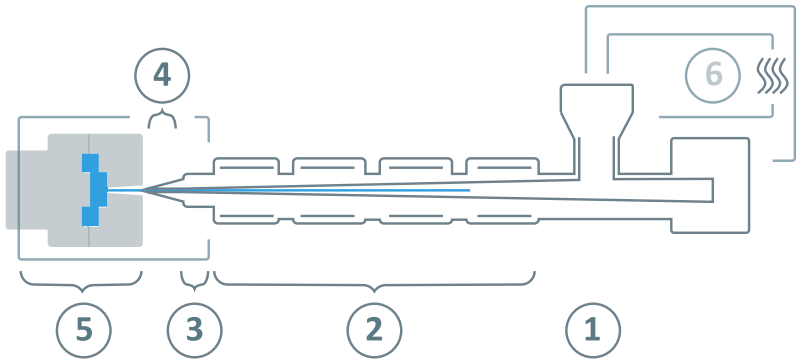
Processing information

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.



6	Drying time	0 - 4 h
	Drying temperature (τ ≤ -30°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	Melting temperature	280 - 300°C
5	Mold temperature	40 - 80°C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min