

PA6.6 – Polyamide 6.6 PA66-I

## AKROMID® A3 S1 natural (7031)

Tensile modulus

**1800 MPa**

1 mm/min

ISO 527-2

Stress at yield

**46 MPa**

50 mm/min

ISO 527-2

Charpy impact strength

**n.b.**

23°C

ISO 179-1/1eU

AKROMID® A3 S1 natural (7031) is an unreinforced, cold impact modified polyamide 6.6 with light inherent color

### 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.	1800 MPa
Stress at yield (50 mm/min   ISO 527-2) d.a.m.	46 MPa
Strain at break (50 mm/min   ISO 527-2) d.a.m.	> 50 %
Charpy impact strength (23°C   ISO 179-1/1eU) d.a.m.	n.b.
Charpy impact strength (-30°C   ISO 179-1/1eU) d.a.m.	n.b.
Charpy notched impact strength (23°C   ISO 179-1/1eA) d.a.m.	> 70 kJ/m <sup>2</sup>



### Thermal Properties

Temperature of deflection under load HDT/A (1,8 MPa   ISO 75)	60 °C
Temperature of deflection under load HDT/B (0,45 MPa   ISO 75)	150 °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)	+



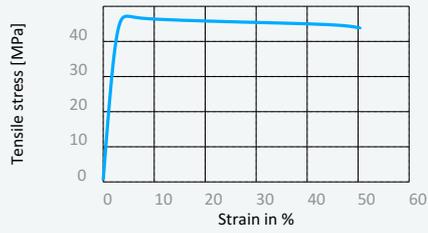
### General properties

Density (23°C   ISO 1183)	1,07 g/cm <sup>3</sup>
Molding shrinkage (flow   ISO 294-4)	1,3 - 1,5 %
Molding shrinkage (transverse   ISO 294-4)	1,5 - 1,7 %

#### Disclaimer:

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Stress strain chart at 23°C



### Electrical Properties

Comparative tracking index (Test liquid A | IEC 60112)

600 V

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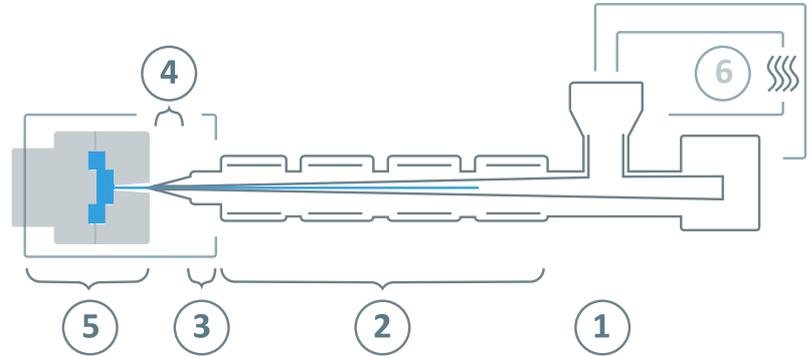
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### Processing information

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	2 - 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	270 - 300°C
⑤	Mold temperature	40 - 90°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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