

AKROMID®

A3 S1 black (8983)

PA66-I

AKROMID® A3 S1 black (8983) is an UL94 HB listed unreinforced, impact modified Polyamide 6.6. The material is characterised by a very high impact strength even at low temperatures and therefore perfectly suitable for connecting and fixing systems which are used in the automotive and electro industry and that are exposed to high loading speeds.

Regulatory



Properties

Modulus	Strength	Impact
1.800 MPa	50 MPa	Na

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min d.a.m.	1800 MPa
Tensile stress at yield ISO 527-2	50 mm/min d.a.m.	50 MPa
Tensile stress at break ISO 527-2	50 mm/min d.a.m.	> 50 MPa
Charpy notched impact strength ISO 179-1/1eA	23°C d.a.m.	90 kJ/m ²

Thermal Properties

Melting temperature ISO 11357-3	DSC, 10K/min	262 °C
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Flammability

Flammability	0,8 mm Wall thickness	HB Class
UL 94		

Burning rate (<100 mm/min)	> 1 mm Thickness	+
FMVSS 302		

General Properties

Density	23°C	1,07 g/cm³
ISO 1183		

Humidity absorption	70°C, 62% r.H.	1,9 - 2,1 %
ISO 1110		

Molding shrinkage	flow	1,3 - 1,5 %
ISO 294-4	transverse	1,5 - 1,7 %

Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



D	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