

AKROMID®

A3 5 black (4701)

PA66

AKROMID® A3 5 black (4701) is an unreinforced, high temperature stabilised polyamide 6.6

Features

heat stabilised 160

Properties

Modulus

3.500 MPa

Strength

90 MPa

Impact

180 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

3500 MPa

1 mm/min | conditioned

1450 MPa

Tensile stress at yield

ISO 527-2

50 mm/min | d.a.m.

90 MPa

50 mm/min | conditioned

55 MPa

Tensile strain at yield

ISO 527-2

50 mm/min | d.a.m.

4,5 %

Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

12 %

50 mm/min | conditioned

>= 30 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

3200 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

125 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

no break

23°C | conditioned

no break

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

>= 4,5 kJ/m²

23°C | conditioned

11 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	70 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	220 °C
Melting temperature ISO 11357-3	DSC, 10K/min	260 °C

Flammability

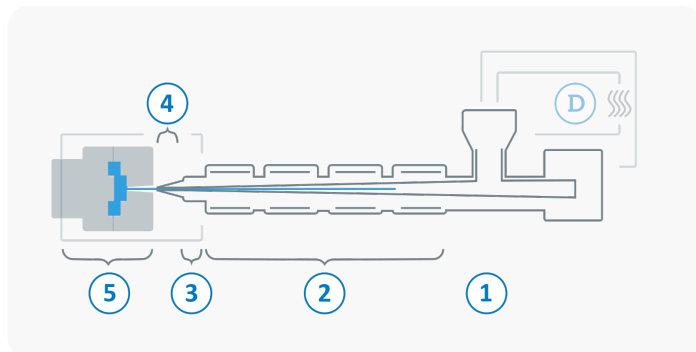
Flammability UL 94	1,6 mm Wall thickness	V-2 Class
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	1,14 g/cm ³
Molding shrinkage ISO 294-4	flow	1,3 - 1,5 %
	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