

AKROMID®

A3 1 S3 black (2768)

PA66+PA6-I

AKROMID® A3 1 S3 black (2768) is an unreinforced, impact modified polyamide 6.6/6 blend. It is characterised by a medium dry impact strength. Furthermore, the material is heat stabilised and therefore perfectly suitable for connecting and fixing systems which are used at elevated temperatures in the automotive and electro industry.

Features

heat stabilised 130

impact modified

Properties

Modulus

2.600 MPa

Strength

68 MPa

Impact

180 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

2600 MPa

1 mm/min | conditioned

1000 MPa

Tensile stress at yield

ISO 527-2

50 mm/min | d.a.m.

68 MPa

50 mm/min | conditioned

40 MPa

Tensile strain at yield

ISO 527-2

50 mm/min | d.a.m.

4,4 %

Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

> 25 %

50 mm/min | conditioned

> 100 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

2100 MPa

2 mm/min | conditioned

1000 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

81 MPa

Standard bending strength RP 3,5

ISO 178

2mm/min | d.a.m.

65 MPa

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

no break

23°C | conditioned

no break

Charpy notched impact strength	23°C d.a.m.	11 kJ/m²
ISO 179-1/1eA	23°C conditioned	95 kJ/m²
	-30°C d.a.m.	8 kJ/m²
Izod notched impact strength	23°C d.a.m.	11 kJ/m²
ISO 180/1A	-30°C d.a.m.	9 kJ/m²
Ball indentation hardness	358N/30s d.a.m.	125 MPa
ISO 2039-1	358N/30s conditioned	65 MPa

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	60 °C
ISO 75		
Temperature of deflection under load HDT/B	0,45 MPa	194 °C
ISO 75		
Melting temperature	DSC, 10K/min	260 °C
ISO 11357-3		
Coefficient of linear thermal expansion	23°C to 80°C parallel	0,83 10⁻⁴/K
ISO 11359-1/2	23°C to 80°C transverse	0,83 10⁻⁴/K

Flammability

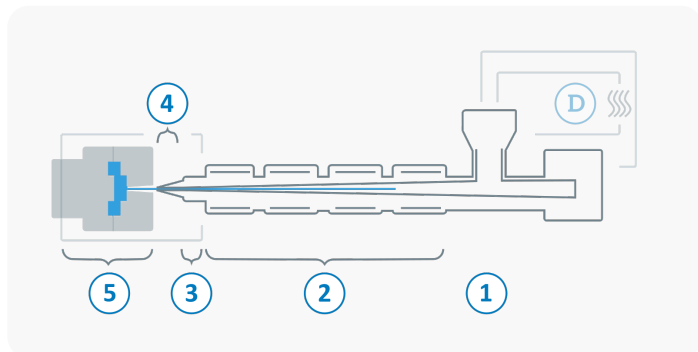
Flammability	1,6 mm Wall thickness	HB Class
UL 94		
Burning rate (<100 mm/min)	> 1 mm Thickness	+
FMVSS 302		

General Properties

Density	23°C	1,11 g/cm³
ISO 1183		
Humidity absorption	70°C, 62% r.H.	2,5 %
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

Diagrams

