

AKROMID®

S3 1 black (3317)

PA610

AKROMID® S3 1 black (3317) is a nonreinforced and heat stabilised polyamide 6.10 with lower moisture absorption and high chemical resistance.

Features

heat stabilised 130 reduced moisture

Properties

Modulus

2.400 MPa

Strength

70 MPa

Impact

180 kJ/m²

Sustainability

Biobased carbon content **60 %**

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

2400 MPa

1 mm/min | conditioned

1200 MPa

Tensile stress at yield

ISO 527-2

50 mm/min | d.a.m.

70 MPa

50 mm/min | conditioned

50 MPa

Tensile strain at yield

ISO 527-2

50 mm/min | d.a.m.

4,5 %

50 mm/min | conditioned

20 %

Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

> 50 %

50 mm/min | conditioned

> 50 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

1900 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

100 MPa

Charpy impact strength ISO 179-1/1eU	23°C d.a.m. 23°C conditioned -30°C d.a.m.	no break no break no break
Charpy notched impact strength ISO 179-1/1eA	23°C d.a.m. 23°C conditioned -30°C d.a.m.	4 kJ/m² 12 kJ/m² 4 kJ/m²
Ball indentation hardness ISO 2039-1	358N/30s d.a.m.	125 MPa

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	55 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	150 °C
Melting temperature ISO 11357-3	DSC, 10K/min	220 °C

Flammability

Flammability UL 94	0,8 mm Wall thickness	HB Class
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	1,08 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	1,7 %
Molding shrinkage ISO 294-4	flow transverse	1,6 % 1,8 %

Rheological Properties

MVR

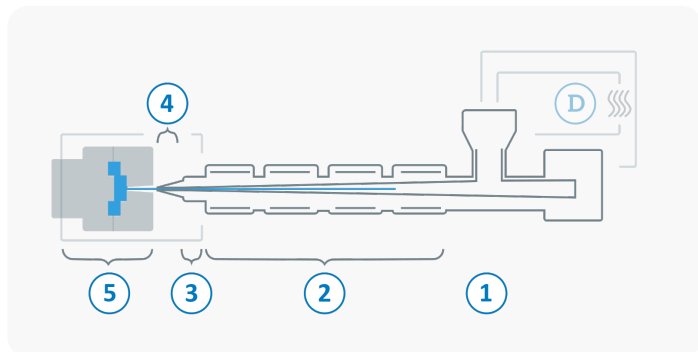
ISO 1133

275°C/2,16kg

10 cm³/10 min

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	0 - 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	230 - 270 °C
(3) Nozzle temperature	230 - 280 °C
(4) Melt temperature	250 - 270 °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