

AKROTEK®

PK-HM 8 black (6246)

PK

AKROTEK® PK-HM 8 black (6246) is an unreinforced, high viscosity polyketone. The material is suitable for drinking water contact and meets the requirements according to ACS. Moreover the material corresponds to the European food guideline EU 10/2011, but not to the American FDA 21 CFR.

Features

hydrolysis / chemically stabilised

Regulatory



Properties

Modulus

1.600 MPa

Strength

60 MPa

Impact

180 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

1600 MPa

1 mm/min | conditioned

1600 MPa

Tensile stress at yield

ISO 527-2

50 mm/min | d.a.m.

60 MPa

50 mm/min | conditioned

60 MPa

Tensile strain at yield

ISO 527-2

50 mm/min | d.a.m.

21 %

50 mm/min | conditioned

21 %

Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

> 300 %

50 mm/min | conditioned

> 300 %

Flexural modulus

ISO 178

2 mm/min | d.a.m.

1700 MPa

Flexural strength

ISO 178

2 mm/min | d.a.m.

62 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.

21 kJ/m²

23°C | conditioned

21 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A

ISO 75

1,8 MPa

100 °C

Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

Flammability

Flammability

UL 94

1,6 mm Wall thickness

HB Class

Burning rate (<100 mm/min)

FMVSS 302

> 1 mm Thickness

+

General Properties

Density

ISO 1183

23°C

1,24 g/cm³

Humidity absorption

ISO 1110

70°C, 62% r.H.

0,8 - 0,9 %

Water absorption

ISO 62

23°C, saturated

2,0 - 2,4 %

Molding shrinkage

ISO 294-4

flow

1,7 - 1,9 %

transverse

1,9 - 2,1 %

Rheological Properties

MVR

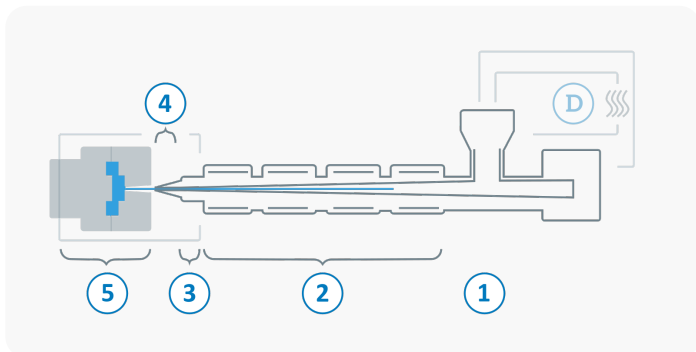
ISO 1133

240°C/2,16kg

6 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	220 - 250 °C
3	Nozzle temperature	230 - 250 °C
4	Melt temperature	230 - 250 °C
5	Mold temperature	60 - 120 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	30 - 70 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min