

AKROTEK®

PK-VM 8 black (6466)

PK

AKROTEK® PK-VM 8 black (6466) is an unreinforced, low viscous polyketone. The material is suitable for drinking water contact and meets the requirements according to ACS as well as NSF61. Moreover the material corresponds to the European food guideline EU 10/2011. Conformity to the American FDA 21 CFR guideline does NOT exist.

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.

> 15 %

50 mm/min | conditioned

> 15 %

Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

> 100 %

50 mm/min | conditioned

> 100 %

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.

12 kJ/m²

23°C | conditioned

12 kJ/m²

Thermal Properties

Temperature of deflection under load HDT/A	1,8 MPa	100 °C
ISO 75		

Melting temperature	DSC, 10K/min	220 °C
ISO 11357-3		

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	1,24 g/cm ³
ISO 1183		

Humidity absorption	70°C, 62% r.H.	0,8 - 0,9 %
ISO 1110		

Molding shrinkage	flow	1,7 - 1,9 %
ISO 294-4	transverse	1,9 - 2,1 %

Electrical Properties

Volume resistivity	d.a.m.	10 ¹³ Ω x cm
IEC 62631-3-1		

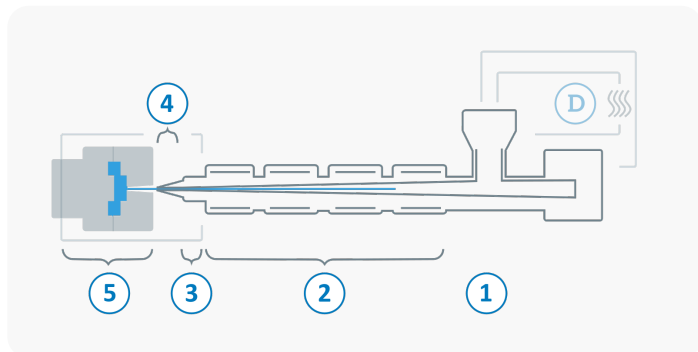
Surface resistivity	d.a.m.	10 ¹³ Ω
IEC 62631-3-2		

Rheological Properties

MVR	240°C/2,16kg	50 cm ³ /10 min
ISO 1133		

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

Diagrams

