

AKROTEK® PRELIMINARY

PK-VM GF 60 natural (8684)

PK GF60

AKROTEK® PK-VM GF 60 natural (8684) is a 60% glass fibre reinforced polyketone with very high stiffness and strength. PK is characterized by its outstanding media resistance, which qualifies it to be used for components that are in contact with chemicals. This type was developed as the successor to PK-VM GF 60 natur (4923) in order to meet the requirements for a larger processing window during processing.

Features

hydrolysis / chemically stabilised

Properties

Modulus

17.500 MPa

Strength

180 MPa

Impact

70 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

17500 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

180 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

1,5 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

70 kJ/m²

Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

20 kJ/m²

Thermal Properties

Melting temperature

ISO 11357-3

DSC, 10K/min

220 °C

Flammability

Flammability		
UL 94	1,6 mm Wall thickness	HB Class

General Properties

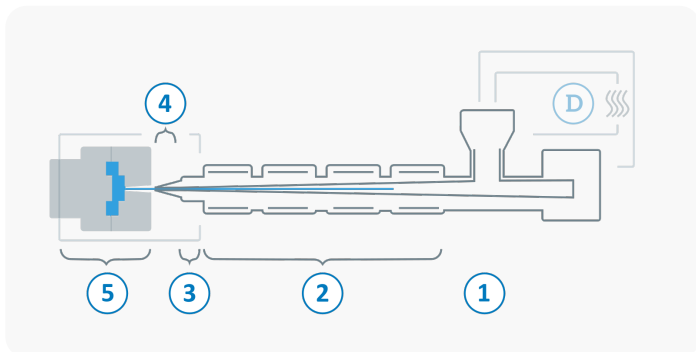
Density		
ISO 1183	23°C	1,8 g/cm³

Humidity absorption		
ISO 1110	70°C, 62% r.H.	0,3 - 0,4 %

Molding shrinkage		
ISO 294-4	flow	0,1 - 0,3 %
	transverse	0,2 - 0,4 %

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 - 260 °C
3	Nozzle temperature	230 - 260 °C
4	Melt temperature	230 - 260 °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