

AKROTEK®

PK-VM GF 30 8 HU black (8783)

PK GF30

AKROTEK® PK-VM GF 30 8 HU black (8783) is a 30% glass fibre reinforced polyketone with 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. The material corresponds to the European food guideline EU 10/2011 and to the American FDA 21 CFR. This grade is suitable for parts of kitchen and household appliances. This compound is listed at UL94 HB all colors. This type was developed as the successor to PK-VM GF 30 8 black (6994) in order to meet the requirements for a larger processing window during processing.

Features

hydrolysis / chemically stabilised

Regulatory



Properties

Modulus

8.100 MPa

Strength

130 MPa

Impact

65 kJ/m²

Mechanical Properties

Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

8100 MPa

Tensile stress at break

ISO 527-2

5 mm/min | d.a.m.

130 MPa

Tensile strain at break

ISO 527-2

5 mm/min | d.a.m.

3,0 %

Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

65 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
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General Properties

Density ISO 1183	23°C	1,48 g/cm³
Humidity absorption ISO 1110	70°C, 62% r.H.	0,6 - 0,7 %
Water absorption ISO 62	23°C, saturated	0,6 - 0,7 %
Molding shrinkage ISO 294-4	flow	0,3 - 0,5 %
	transverse	0,8 - 1,0 %

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