

## AKROTEK® PK-VM M 10 natural (7575)

PK

AKROTEK® PK-VM M 10 natural (7575) is a 10% mineral reinforced Polyketone with high flowability, isotropic shrinkage and dark inherent color. The outstanding friction and wear properties enable the use for demanding components exposed to tribological stress. PK is characterized by its outstanding media resistance, which qualifies it to be used for components that are in contact with chemicals. The most important markets for AKROTEK® PK are the automotive and furniture industry and mechanical engineering.

### Features

hydrolysis / chemically stabilised

### Properties

Modulus

**2.900 MPa**

Strength

**58 MPa**

Impact

**50 kJ/m²**

## Mechanical Properties

### Tensile modulus

ISO 527-2

1 mm/min | d.a.m.

**2900 MPa**

### Tensile stress at yield

ISO 527-2

50 mm/min | d.a.m.

**58 MPa**

### Tensile strain at break

ISO 527-2

50 mm/min | d.a.m.

**> 10 %**

### Charpy impact strength

ISO 179-1/1eU

23°C | d.a.m.

**50 kJ/m²**

### Charpy notched impact strength

ISO 179-1/1eA

23°C | d.a.m.

**7,5 kJ/m²**

## Thermal Properties

### Melting temperature

ISO 11357-3

DSC, 10K/min

**220 °C**

## General Properties

<b>Density</b> ISO 1183	23°C	<b>1,31 g/cm<sup>3</sup></b>
<b>Humidity absorption</b> ISO 1110	70°C, 62% r.H.	<b>0,7 - 0,8 %</b>
<b>Molding shrinkage</b> ISO 294-4	flow	<b>1,6 %</b>
	transverse	<b>1,6 %</b>

## 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.



<b>D</b>	Drying time	0 - 4 h
	Drying temperature ( $\tau \leq -30^{\circ}\text{C}$ )	80 °C
	Processing moisture	0,02 - 0,1 %
<b>1</b>	Feed section	60 - 80 °C
<b>2</b>	Temperature Zone 1 - Zone 4	220 - 260 °C
<b>3</b>	Nozzle temperature	230 - 260 °C
<b>4</b>	Melt temperature	230 - 260 °C
<b>5</b>	Mold temperature	60 - 120 °C
<b>→</b>	Holding pressure, spec.	300 - 800 bar
<b>←</b>	Back pressure, spec.	30 - 70 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

## Diagrams

