+135-3858-6433 (GuangDong)
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AKRO COMPOUNDS

Compound No.: **8682**

AKROTEK® PRELIMINARY

PK-VM GF 40 natural (8682)

PK GF40

AKROTEK® PK-VM GF 40 natural (8682) is a 40% glass fibre reinforced Polyketone with very high stiffness and strength. Due to its very good media resistance, the material is suitable for use in applications that carry cooling water. This type was developed as the successor to PK-VM GF 40 natur (5855) in order to meet the requirements for a larger processing window during processing.

Features

hydrolysis / chemically stabilised

Properties

Modulus	Strength	Impact
11.000 MPa	**165** MPa	**78** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m.	**11000 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m.	**165 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m.	**2,9 %**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m.	**78 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m.	**15 kJ/m²**

Thermal Properties

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

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General Properties

Density ISO 1183	23°C	**1,56 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**0,5 - 0,6 %**
Molding shrinkage ISO 294-4	flow	**0,2 - 0,4 %**
	transverse	**0,6 - 0,8 %**

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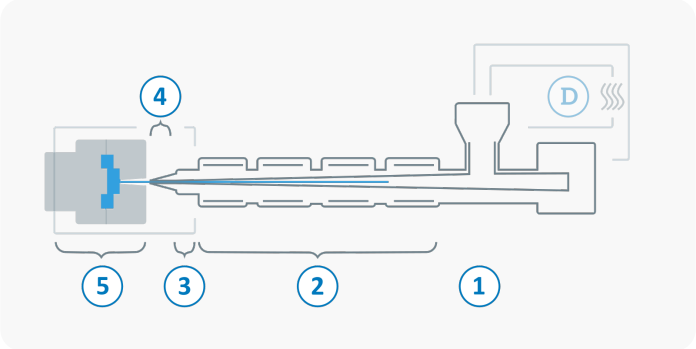
Processing

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 (τ <= -30°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