+135-3858-6433 (GuangDong)
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AKRO COMPOUNDS

Compound No.: **6982**

AKROTEK® PRELIMINARY

PK-VM GF 20 natural (6982)

PK GF20

AKROTEK® PK-VM GF 20 8 natural (6982) is a 20% glass fibre reinforced, low viscous polyketone with average stiffness and strength and light inherent color. Please note that the material is NOT suitable anymore for drinking water contact and does NOT meet the requirements according to KTW, DVGW W270, ACS, WRAS as well as NSF61 and does NOT correspond to the European food guideline EU 10/2011 as well as to the American FDA 21 CFR guideline.

Features

hydrolysis / chemically stabilised

Properties

Modulus	Strength	Impact
5.800 MPa	**100** MPa	**50** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**5800 MPa** **5600 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**100 MPa** **90 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**2,5 %** **2,5 %**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned	**50 kJ/m²** **45 kJ/m²**

Thermal Properties

Temperature of deflection under load HDT/A ISO 75	1,8 MPa	**210 °C**
Melting temperature ISO 11357-3	DSC, 10K/min	**220 °C**

Flammability

Flammability UL 94	1,6 mm Wall thickness	**HB Class**
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

General Properties

Density ISO 1183	23°C	**1,4 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**0,6 - 0,7 %**
Molding shrinkage ISO 294-4	flow transverse	**0,4 - 0,6 %** **0,9 - 1,1 %**

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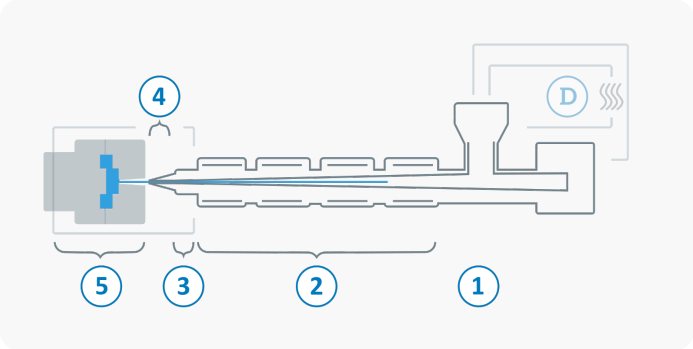
Processing

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