Product Information

VESTAKEEP® 2000 GF30

Glass fiber-reinforced (30%) polyether ether ketone

VESTAKEEP 2000 GF30 is a medium-viscosity, glass fiber-reinforced (30%) polyether ether ketone for injection molding.

The semi-crystalline polymer features superior mechanical, thermal, and chemical resistance. Parts made from VESTAKEEP 2000 GF30 are self-extinguishing.

VESTAKEEP 2000 GF30 can be processed by common injection-molding machines for thermoplastics.

We recommend a melt temperature between 380°C and 400°C during the injection molding process. The mold temperature should be within a range of 160°C to 200°C, preferably 180°C.

VESTAKEEP 2000 GF30 is supplied as cylindrical pellets in 25 kg boxes with moisture-proof polyethylene liners.

For information about processing of VESTAKEEP 2000 GF30, please follow the general recommendations in our brochure "VESTAKEEP Polyether Ether Ketone."

For further information, please contact our experts in the department Market Development of the High Performance Polymers Business Line.

Property		Test method international	Test method national	Unit	VESTAKEEP 2000 GF30
Density	23°C	ISO 1183	DIN EN ISO 1183	g/cm³	1.50
Tensile test		ISO 527-1	DIN EN ISO 527-1		
Tensile strength		ISO 527-2	DIN EN ISO 527-2	MPa	165
Strain at break				%	2
Tensile modulus		ISO 527-1	DIN EN ISO 527-1	MPa	11000
		ISO 527-2	DIN EN ISO 527-2		
CHARPY impact strength		ISO 179/1eU	DIN EN ISO 179/1eU		
	23°C			kJ/m²	55 C [1]
	-30°C			kJ/m²	65 C [1]
CHARPY notched impact strength		ISO 179/1eA	DIN EN ISO 179/1eA		
	23°C			kJ/m²	9 C [1]
	-30°C			kJ/m²	8 C [1]
Temperature of deflection		ISO 75-1	DIN EN ISO 75-1		
under load		ISO 75-2	DIN EN ISO 75-2		
Method A	1.8 MPa			°C	323
Method B	0.45 MPa			°C	338
Vicat softening temperature		ISO 306	DIN EN ISO 306		
Method A	10 N			°C	340
Method B	50 N			°C	335
Linear thermal expansion		ISO 11359	DIN 53752		
	23-55°C				
longitudinal				$10^{-4}K^{-1}$	0.3
Relative permittivity		IEC 60250	DIN VDE 0303-T4		
	50 Hz				3.4
	1 MHz				3.3
Electric strength	K20/P50	IEC 60243-1	IEC 60243-1	kV/mm	25
Comparative tracking index		IEC 60112	IEC 60112		
Test solution A	CTI				200
	100 drops value				175
Volume resistivity		IEC 60093	DIN IEC 60093	Ohm · cm	10^{15}
Surface resistance		IEC 60093	DIN IEC 60093	Ohm	10^{14}
Melting range		ISO 11357			
DSC	2nd heating			°C	approx. 340
Melt volume-flow rate (MVR)		ISO 1133	DIN EN ISO 1133		
	380°C/5kg			cm^3/10 min	17
Flammability acc. UL94		IEC 60695	UL94		
	0.8 mm				V-1
	1.6 mm				V-0
Glow wire test		IEC 60695-2-12/13	DIN EN 60695-2-12/13		
GWIT	2 mm			°C	875
GWFI	2 mm			°C	960
Mold shrinkage		determined on 2 mm sheets with film gate at rim mold temperature 180°C ISO 294-4			
	in flow direction			%	0.4
	in transverse direction			%	0.9

Pigmentation may affect values.

® = registered trademark

[1] C = Complete break, incl. hinge break H

Evonik Degussa GmbH BL High Performance Polymers 45764 Marl Germany
Phone +49 2365 49-9878 Fax +49 02365 49-5992
www.evonik.com/hp

EVONIK INDUSTRIES