VESTAKEEP® 2000 CF30

Polyetheretherketone

Evonik Industries AG

Message:

Carbon fiber-reinforced (30%) polyether ether ketone
VESTAKEEP 2000 CF30 is a medium-viscosity, carbon 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 CF30 are self-extinguishing.
VESTAKEEP 2000 CF30 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.

General Information			
Filler / Reinforcement	Carbon Fiber,30% Filler by Weight		
Features	Good Chemical Resistance Medium Viscosity Self Extinguishing Semi Crystalline		
Forms	Granules		
Processing Method	Injection Molding		
Physical	**Nominal Value**	**Unit**	**Test Method**
Density	1.38	g/cm³	ISO 1183
Melt Volume-Flow Rate (MVR) (380°C/5.0 kg)	10.0	cm³/10min	ISO 1133
Molding Shrinkage [1]			ISO 294-4
Across Flow : 180°C, 2.00 mm	0.40	%	
Flow : 180°C, 2.00 mm	0.0	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus	23000	MPa	ISO 527-2
Tensile Stress (Break)	240	MPa	ISO 527-2
Tensile Strain (Break)	2.0	%	ISO 527-2
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength			ISO 179/1eA
-30°C, Complete Break	8.0	kJ/m²	
23°C, Complete Break	9.0	kJ/m²	
Charpy Unnotched Impact Strength			ISO 179/1eU
-30°C, Complete Break	45	kJ/m²	
23°C, Complete Break	45	kJ/m²	
Thermal	**Nominal Value**	**Unit**	**Test Method**
Heat Deflection Temperature			
0.45 MPa, Unannealed	340	°C	ISO 75-2/B

1.8 MPa, Unannealed	330	°C	ISO 75-2/A
Vicat Softening Temperature			
--	343	°C	ISO 306/A
--	340	°C	ISO 306/B
Melting Temperature [2]	340	°C	ISO 11357-3
CLTE - Flow (23 to 55°C)	1.0E-5	cm/cm/°C	ISO 11359-2
Electrical	**Nominal Value**	**Unit**	**Test Method**
Surface Resistivity	1.0E+5	ohms	IEC 60093
Volume Resistivity	1.0E+6	ohms·cm	IEC 60093
Flammability	**Nominal Value**	**Unit**	**Test Method**
Flame Rating (1.60 mm)	V-0		UL 94
Glow Wire Flammability Index (2.00 mm)	960	°C	IEC 60695-2-12
Glow Wire Ignition Temperature (2.00 mm)	875	°C	IEC 60695-2-13
Injection	**Nominal Value**	**Unit**	
Processing (Melt) Temp	380 to 400	°C	
Mold Temperature	160 to 200	°C	
NOTE			
1.	determined on 2 mm sheets with film gate at rim mold temperature 180°C		
2.	2nd heating		

Recommended distributors for this material

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