VESTAKEEP® 2000 GF30

PEEK-GF30 Evonik Operations GmbH

Product Texts

Glass fiber-reinforced (30%), medium viscosity 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 of low flammability.

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 25kg boxes with moisture-proof polyethylene liners.

Pigmentation may affect values.

Inside the original and undamaged packaging, the product has a shelf life of at least 2 years when stored in dry rooms at temperatures not exceeding 30°C.

For information about processing of VESTAKEEP 2000 GF30, please follow the general recommendations in our brochure “VESTAKEEP® PEEK Processing Guidelines“.

The values presented are typical or average values, they do not constitute a specification.

FOR FURTHER INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM OR VISIT OUR PRODUCT AT WWW.INDUSTRIAL.VESTAKEEP.COM

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**24**	cm³/10min	ISO 1133
Temperature	**400**	°C	-
Load	**5**	kg	-
[C] Molding shrinkage, parallel	**0.2**	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**0.7**	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**11000**	MPa	ISO 527
[C] Stress at break	**180**	MPa	ISO 527
[C] Strain at break	**3**	%	ISO 527
[C] Charpy impact strength, +23°C	**55**	kJ/m²	ISO 179/1eU
[C] Type of failure	**C**	-	-
[C] Charpy impact strength, -30°C	**65**	kJ/m²	ISO 179/1eU
[C] Type of failure	**C**	-	-
[C] Charpy notched impact strength, +23°C	**10**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C**	-	-
[C] Charpy notched impact strength, -30°C	**8**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C**	-	-

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**340**	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**323**	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**338**	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**335**	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**30**	E-6/K	ISO 11359-1/-2

[C] Burning Behav. at 1.5 mm nom. thickn.	**V-0**	class	IEC 60695-11-10
Thickness tested	**1.6**	mm	-
[C] Oxygen index	**45**	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**3.3**	-	IEC 62631-2-1
[C] Relative permittivity, 1MHz	**3.3**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**20**	E-4	IEC 62631-2-1
[C] Dissipation factor, 1MHz	**40**	E-4	IEC 62631-2-1
[C] Volume resistivity	**>1E13**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	**1E15**	Ohm	IEC 62631-3-2
[C] Electric strength	**37**	kV/mm	IEC 60243-1
[C] Comparative tracking index	**200**	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
[C] Water absorption	**0.4**	%	Sim. to ISO 62
[C] Density	**1500**	kg/m³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
[C] Injection Molding, melt temperature	**380**	°C	ISO 294
Injection Molding, mold temperature	**180**	°C	ISO 294
Injection Molding, injection velocity	**200**	mm/s	ISO 294
Injection Molding, pressure at hold	**120**	MPa	ISO 294

[C]: CAMPUS

Characteristics

Processing
Injection Molding

Delivery form
Pellets

Regional Availability
North America, Europe, Asia Pacific, South and Central America, Near East/Africa