

Product Texts

Medium viscosity, unreinforced polyether ether ketone

VESTAKEEP® 2000 G is a medium viscosity, unreinforced polyether ether ketone for injection molding.

The semi-crystalline polymer features superior, thermal and chemical resistance. Parts made from VESTAKEEP® 2000 G are of low flammability.

VESTAKEEP® 2000 G can be processed on common injection molding machines for thermoplastics.

We recommend a melt temperature between 360°C and 380°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 G is supplied as granules in 25 kg boxes with moisture-proof polyethylene inliners.

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.

Pigmentation may affect values.

For information about processing VESTAKEEP® 2000 G, 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	70	cm ³ /10min	ISO 1133
Temperature	380	°C	-
Load	5	kg	-
^[C] Molding shrinkage, parallel	1.1	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.1	%	ISO 294-4, 2577

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3700	MPa	ISO 527
^[C] Yield stress	100	MPa	ISO 527
^[C] Yield strain	5	%	ISO 527
^[C] Nominal strain at break	20	%	ISO 527
^[C] Charpy impact strength, +23°C	N	kJ/m ²	ISO 179/1eU
^[C] Charpy impact strength, -30°C	N	kJ/m ²	ISO 179/1eU
^[C] Charpy notched impact strength, +23°C	6	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C	-	-
^[C] Charpy notched impact strength, -30°C	6	kJ/m ²	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] Glass transition temperature, 10°C/min	150	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	155	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	205	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	310	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	60	E-6/K	ISO 11359-1/-2

Yellow Card available	yes	-	-
^[C] Oxygen index	38	%	ISO 4589-1/-2

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	2.8	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	2.8	-	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	50	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	32.6	kV/mm	IEC 60243-1
^[C] Comparative tracking index	200	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.5	%	Sim. to ISO 62
^[C] Humidity absorption	0.12	%	Sim. to ISO 62
^[C] Density	1300	kg/m ³	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, Film Extrusion, Other Extrusion

Special Characteristics
Heat stabilized or stable to heat

Delivery form
Pellets

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