

Product Texts
High viscosity, unreinforced polyether ether ketone

VESTAKEEP® L 4000 G is a high viscosity, unreinforced lubricated polyether ether ketone for injection molding and extrusion.

The semi-crystalline polymer features superior, thermal and chemical resistance. Parts made from VESTAKEEP® L4000G are of low flammability.

VESTAKEEP® L 4000 G can be processed by common machines for thermoplastics.

The additional lubrication agent improves the feeding process.

We recommend a melt temperature between 370°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® L 4000 G is supplied as granules in 25 kg boxes with moisture-proof polyethylene liners.

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.

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	12	cm ³ /10min	ISO 1133
Temperature	380	°C	-
Load	5	kg	-
^[C] Molding shrinkage, parallel	0.9	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.1	%	ISO 294-4, 2577
^[C] Thermal conductivity of melt	0.18	W/(m K)	-
^[C] Spec. heat capacity of melt	2110	J/(kg K)	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	3600	MPa	ISO 527
^[C] Yield stress	94	MPa	ISO 527
^[C] Yield strain	5	%	ISO 527
^[C] Nominal strain at break	30	%	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	7	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] 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	305	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	60	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	-
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] 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	0.3	%	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, Profile Extrusion, Other Extrusion

Regional Availability

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

Delivery form

Pellets