

Product Information

VESTAKEEP® *Ultimate*

High-viscosity, unreinforced polyether ether ketone

VESTAKEEP *Ultimate* is a high-viscosity, unreinforced polyether ether ketone for injection molding and extrusion.

The semi-crystalline polymer features superior thermal and chemical resistance. Parts made from VESTAKEEP *Ultimate* are self-extinguishing.

VESTAKEEP *Ultimate* can be processed by common machines for thermoplastics.

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 *Ultimate* is supplied as granules in 25 kg boxes with moisture-proof polyethylene liners.

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

For further information, please contact us at evonik-hp@evonik.com.

Property	Test method		Unit	VESTAKEEP <i>Ultimate</i>	
	international	national			
Density	23°C	ISO 1183	DIN EN ISO 1183	g/cm ³	1.30
Tensile test		ISO 527-1	DIN EN ISO 527-1		
Stress at yield		ISO 527-2	DIN EN ISO 527-2	MPa	95
Strain at yield				%	5
Strain at break				%	40
Tensile modulus		ISO 527-1	DIN EN ISO 527-1	MPa	3400
		ISO 527-2	DIN EN ISO 527-2		
CHARPY impact strength		ISO 179/1eU	DIN EN ISO 179/1eU		
	23°C			kJ/m ²	N ¹⁾
	-30°C			kJ/m ²	N ¹⁾
CHARPY notched impact strength		ISO 179/1eA	DIN EN ISO 179/1eA		
	23°C			kJ/m ²	9 C ¹⁾
	-30°C			kJ/m ²	8 C ¹⁾
Vicat softening temperature		ISO 306	DIN EN ISO 306		
Method A	10 N			°C	335
Method B	50 N			°C	305
Linear thermal expansion		ISO 11359	DIN 53752		
	23-55°C				
longitudinal				10 ⁻⁴ K ⁻¹	0.6
Relative permittivity		IEC 60250	DIN VDE 0303-T4		
	50 Hz				2.8
	1 MHz				2.8
Electric strength	K20/P50	IEC 60243-1	IEC 60243-1	kV/mm	16
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	2 nd heating			°C	approx. 340
Melt volume-flow rate (MVR)		ISO 1133	DIN EN ISO 1133		
	380°C/ 5kg			cm ³ /10 min	7
Flammability acc. UL94		IEC 60695	UL94		
	3.2 mm				V-0
Glow wire test		IEC 60695-2-	DIN EN 60695-2-		
GWIT	2 mm	12/13	12/13	°C	850
GWFI	2 mm			°C	960
Mold shrinkage		determined on 2 mm sheets			
	in flow direction	with film gate at rim		%	0.9
	in transverse direction	mold temperature 180°C ISO 294-4		%	1.1

Pigmentation may affect values.

¹⁾ C = Complete break, incl. hinge break H
N = No break

® = registered trademark

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