

Product Information

VESTAKEEP® 4000 CC20 **Ceramic-filled (20%) polyether ether ketone**

VESTAKEEP 4000 CC20 is a ceramic-filled (20%) polyether ether ketone for injection molding and extrusion.

The semi-crystalline polymer features superior mechanical, thermal, and chemical resistance. Parts made from VESTAKEEP 4000 CC20 are self-extinguishing.

VESTAKEEP 4000 CC20 can be processed on common injection molding machines for thermoplastics.

We recommend a melt temperature of 380°C to 400°C during the injection molding process. The mold temperature should be in a range of 160°C to 200°C, preferably 180°C.

VESTAKEEP 4000 CC20 is supplied as cylindrical pellets in 25 kg boxes with moisture-proof polyethylene liners.

For information about processing of VESTAKEEP 4000 CC20, 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 4000 CC20	
	international	national			
Density	23 °C	ISO 1183	DIN EN ISO 1183	g/cm ³	1.49
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				%	20
Tensile modulus		ISO 527-1	DIN EN ISO 527-1	MPa	4100
		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	P ¹⁾
CHARPY notched impact strength		ISO 179/1eA	DIN EN ISO 179/1eA		
	23 °C			kJ/m ²	7 C ¹⁾
	-30 °C			kJ/m ²	7 C ¹⁾
Temperature of deflection under load		ISO 75-1	DIN EN ISO 75-1		
		ISO 75-2	DIN EN ISO 75-2		
Method A	1.8 MPa			°C	155
Method B	0.45 MPa			°C	210
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	0.45
Melting range		ISO 11357			
DSC	2 nd heating			°C	approx. 340
Melt volume-flow rate (MVR)		ISO 1133	DIN EN ISO 1133		
	380 °C/ 5 kg			cm ³ /10 min	8
Flammability acc. UL94		IEC 60695	UL94		
	1.6 mm				V-0
Water absorption		ISO 62	DIN EN ISO 62		
	saturation			%	0.4

Pigmentation may affect the values.

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

® = registered trademark

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