

Product Information

VESTAKEEP® 4000P

Unreinforced, high-viscosity polyether ether ketone powder

VESTAKEEP 4000P is an unreinforced, high-viscosity polyether ether ketone powder. The product is suitable for the manufacture of compounds or it can be used as scatter-powder for the manufacture of composites.

The semi-crystalline polymer features superior thermal and chemical resistance. VESTAKEEP 4000P is self-extinguishing.

VESTAKEEP 4000P is supplied as powder in boxes with moisture-proof polyethylene liners.

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

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

Powder Information

Property	Test method		Unit	VESTAKEEP 4000P
	international	national		
App. bulk density	ISO 60	DIN 53 468	g/dm ³	220
Average particle size	d50	Malvern Mastersizer	µm	approx. 550

Application technology properties

Property	Test method		Unit	VESTAKEEP 4000P	
	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	96
Strain at yield				%	5
Strain at break				%	30
Tensile modulus		ISO 527-1/2	DIN EN ISO 527-1/2	MPa	3500
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	7 C ¹⁾
	-30 °C			kJ/m ²	6 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	150
Method B	0.45 MPa			°C	205
Vicat softening temperature		ISO 306	DIN EN ISO 306		
Method A	10 N			°C	335
Method B	50 N			°C	305
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	11
Flammability acc. UL94	3.2 mm	IEC60695	UL94		V-0

Pigmentation may affect the values.

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

® = registered trademark

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