

Product Information

VESTAKEEP® 1000 P

UNREINFORCED, LOW-VISCOSITY POLYETHER ETHER KETONE POWDER



VESTAKEEP® 1000 P is an unreinforced, low-viscosity polyether ether ketone powder. The product is suitable for the manufacture of compounds or it can be used as scatterpowder for the manufacture of composites.

The semi-crystalline polymer features superior thermal and chemical resistance. Parts made from VESTAKEEP® 1000 P are of low flammability.

VESTAKEEP® 1000 P is supplied as a powder in 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.

For information about processing of VESTAKEEP® 1000 P, please follow the general recommendations in our brochure "VESTAKEEP® Polyether Ether Ketone."

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

Key Features

Industrial Sector

Automotive and Mobility, Industry and Engineering

Resistance to

Heat (thermal stability), Fire / burn

Processing

Press and sintering, Coating

Additives

Unfilled

Delivery form

Powder

Mechanical properties ISO

	Value	Unit	Test Standard
Tensile modulus	3900	MPa	ISO 527
Tensile strength	100	MPa	ISO 527
Yield stress	100	MPa	ISO 527
Yield strain	5.5	%	ISO 527

Stress at break	70	MPa	ISO 527
Nominal strain at break, tB	10	%	ISO 527
Charpy impact strength, +23°C	60	kJ/m ²	ISO 179/1eU
Type of failure	C	-	-
Charpy impact strength, -30°C	60	kJ/m ²	ISO 179/1eU
Type of failure	C	-	-
Charpy notched impact strength, +23°C	5	kJ/m ²	ISO 179/1eA
Type of failure	C	-	-
Charpy notched impact strength, -30°C	5	kJ/m ²	ISO 179/1eA
Type of failure	C	-	-

Thermal properties	Value	Unit	Test Standard
Melting temperature	340	°C	ISO 11357-1/-3
Glass transition temperature, DSC	150	°C	ISO 11357-1/-2
Temp. of deflection under load A, 1.80 MPa	155	°C	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	205	°C	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	335	°C	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	310	°C	ISO 306
Melting Temperature	340	°C	ASTM D 3418

Physical properties	Value	Unit	Test Standard
Density	1300	kg/m ³	ISO 1183
Bulk density, Granulate	0.2	kg/m ³	-
Density	1300	kg/m ³	ASTM D 792

Burning Behav.	Value	Unit	Test Standard
Burning behav. at 1.5 mm nom. thickn.	V-0	class	IEC 60695-11-10
Thickness tested	1.6	mm	-

Rheological properties

	Value	Unit	Test Standard
Melt volume-flow rate, MVR	150	cm ³ /10min	ISO 1133
Temperature	380	°C	-
Load	5	kg	-

Powder properties

	Value	Unit	Test Standard
Bulk density, powder	200	g/l	EN ISO 60
Particle size, D(50)	550	µm	ISO 13320, DIN ISO 8130-13

Test specimen production

	Value	Unit	Test Standard
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

Characteristics

Applications

Electrical and Electronical

Processing

Scatter coating

Special Characteristics

Semi-crystalline, Low viscosity

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Evonik Operations GmbH
Smart Materials
High Performance Polymers
45772 Marl / Germany
Tel: +49 2365 49-9878
evonik-hp@evonik.com
www.plastics-database.com