Product Information

VESTAKEEP® 2000 P

MEDIUM-VISCOSITY, UNREINFORCED POLYETHER ETHER KETONE POWDER

VESTAKEEP® 2000 P is a medium-viscosity, unreinforced polyether ether ketone powder grade and serves as basis material for compounds and scattering powder for composites.

The semi-crystalline polymer features superior thermal and chemical resistance. Parts made from VESTAKEEP® 2000 P are of low flammability.

VESTAKEEP® 2000 P is supplied as powder in boxes with moisture–proof polyethylene liners.

Pigmentation may affect values.

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.

For information about processing VESTAKEEP® 2000 P, please follow the general recommendations in our brochure “VESTAKEEP® High Performance in Powder Form Polyether Ether Ketone Powders“.

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, Aircraft and Aerospace, Industry and Engineering

Processing
Press and sintering, Coating

Delivery form
Powder

Resistance to
Heat (thermal stability), Fire / burn

Conformity
Food contact

Additives
Unfilled

Mechanical properties ISO	dry	Unit	Test Standard
Tensile modulus	**3700**	MPa	ISO 527
Tensile strength	**100**	MPa	ISO 527
Yield stress	**100**	MPa	ISO 527

Yield strain	**5**	%	ISO 527
Stress at break	**70**	MPa	ISO 527
Strain at break, B	**25**	%	ISO 527
Nominal strain at break, tB	**30**	%	ISO 527
Charpy impact strength, +23°C	**N**	kJ/m²	ISO 179/1eU
Charpy impact strength, -30°C	**N**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, +23°C	**6**	kJ/m²	ISO 179/1eA
Type of failure	**C**	-	-
Charpy notched impact strength, -30°C	**6**	kJ/m²	ISO 179/1eA
Type of failure	**C**	-	-

Thermal properties	**dry**	**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	**dry**	**Unit**	**Test Standard**
Density	**1300**	kg/m³	ISO 1183
Density	**1300**	kg/m³	ASTM D 792

Burning Behav.	**dry**	**Unit**	**Test Standard**
Burnin behav. at thickness h	**V-0**	class	IEC 60695-11-10
Thickness tested	**3.2**	mm	-
Glow Wire Flammability Index (GWFI)	**960**	°C	IEC 60695-2-12
GWFI - thickness tested	**2**	mm	-

Glow Wire Ignition Temperature (GWIT)	**800**	°C	IEC 60695-2-13
GWIT - thickness tested	**2**	mm	-

Rheological properties	**dry**	**Unit**	**Test Standard**
Melt volume-flow rate, MVR	**70**	cm^3/10min	ISO 1133
Temperature	**380**	°C	-
Load	**5**	kg	-

Powder properties	**dry**	**Unit**	**Test Standard**
Bulk density, powder	**195**	g/l	EN ISO 60
Particle size, D(50)	**550**	µm	ISO 13320, DIN ISO 8130-13

Test specimen production	**dry**	**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

Color
Natural color

Processing
Scatter coating

Chemical Resistance
General chemical resistance

Special Characteristics
Semi-crystalline, Environmental stress crack resistance, Medium viscosity

Processing Recommendation Injection Molding	**dry**	**Unit**	**Test Standard**
Melt temperature	**380**	°C	-
Mold temperature	**180**	°C	-
Back pressure	**5**	MPa	-

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