

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".

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	537000	psi	ISO 527
Tensile strength	14500	psi	ISO 527
Yield stress	14500	psi	ISO 527

Yield strain	5	%	ISO 527
Stress at break	10200	psi	ISO 527
Strain at break, B	25	%	ISO 527
Nominal strain at break, tB	30	%	ISO 527
Charpy impact strength, +23°C	N	ftlb/in ²	ISO 179/1eU
Charpy impact strength, -30°C	N	ftlb/in ²	ISO 179/1eU
Charpy notched impact strength, +23°C	2.85	ftlb/in ²	ISO 179/1eA
Type of failure	C	-	-
Charpy notched impact strength, -30°C	2.85	ftlb/in ²	ISO 179/1eA
Type of failure	C	-	-

Thermal properties	dry	Unit	Test Standard
Melting temperature	644	°F	ISO 11357-1/-3
Glass transition temperature, DSC	302	°F	ISO 11357-1/-2
Temp. of deflection under load A, 1.80 MPa	311	°F	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	401	°F	ISO 75-1/-2
Vicat softening temperature A, 10 N, 50 K/h	635	°F	ISO 306
Vicat softening temperature B, 50 N, 50 K/h	590	°F	ISO 306
Melting Temperature	644	°F	ASTM D 3418

Physical properties	dry	Unit	Test Standard
Density	1.3	g/cm ³	ISO 1183
Density	1.3	g/cm ³	ASTM D 792

Burning Behav.	dry	Unit	Test Standard
Burnin behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	0.1260	in	-
Glow Wire Flammability Index (GWFI)	1760	°F	IEC 60695-2-12
GWFI - thickness tested	0.0787	in	-

Glow Wire Ignition Temperature (GWIT)	1470	°F	IEC 60695-2-13
GWIT - thickness tested	0.0787	in	-

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	716	°F	ISO 294
Injection Molding, mold temperature	356	°F	ISO 294
Injection Molding, injection velocity	7.87	in/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	716	°F	-
Mold temperature	356	°F	-
Back pressure	725	psi	-