Product Information

VESTAKEEP® 2000 UFP20

UNREINFORCED, MEDIUM-VISCOSITY POLYETHER ETHER KETONE ULTRA-FINE POWDER

VESTAKEEP® 2000 UFP20 is an unreinforced, medium-viscosity polyether ether ketone ultra-fine powder. The product can be used for coatings according to the tribo-method or can be applied in a suspension.

The semi-crystalline polymer features superior thermal and chemical resistance. VESTAKEEP® 2000 UFP20 is of low flammability.

VESTAKEEP® 2000 UFP20 is supplied as a powder in boxes with moisture-proof polyethylene liners.

Pigmentation may affect values.

Values measured on VESTAKEEP® 2000 P.

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 of VESTAKEEP® 2000 UFP20, 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, Energy, Oil and Gas

Processing
Press and sintering, Coating

Delivery form
Powder

Optics
Laser transparent

Resistance to
Heat (thermal stability), Fire / burn, Hydrolysis / hot water, UV / light / weathering, Wear / abrasion, Fatigue resistance, Oil / fuels

Electrical
Insulating

Conformity
Food contact

Additives
Unfilled

Mechanical properties ISO	dry	Unit	Test Standard
Tensile modulus	**3700**	MPa	ISO 527

EVONIK Leading Beyond Chemistry

Tensile strength	**100**	MPa	ISO 527
Yield stress	**100**	MPa	ISO 527
Yield strain	**5**	%	ISO 527
Stress at break	**70**	MPa	ISO 527
Nominal strain at break, tB	**30**	%	ISO 527
Charpy impact strength, +23°C	**N**	kJ/m^2	ISO 179/1eU
Charpy impact strength, -30°C	**N**	kJ/m^2	ISO 179/1eU
Charpy notched impact strength, +23°C	**6**	kJ/m^2	ISO 179/1eA
Type of failure	**C**	-	-
Charpy notched impact strength, -30°C	**6**	kJ/m^2	ISO 179/1eA
Type of failure	**C**	-	-

Thermal properties	**dry**	**Unit**	**Test Standard**
Melting temperature	**340**	°C	ISO 11357-1/-3
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/m^3	ISO 1183
Density	**1300**	kg/m^3	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	-

Rheological properties	dry	Unit	Test Standard
Melt volume-flow rate, MVR	**71**	cm^3/10min	ISO 1133
Temperature	**380**	°C	-
Load	**5**	kg	-

Powder properties	dry	Unit	Test Standard
Bulk density, powder	**230**	g/l	EN ISO 60
Particle size, Max.	**85**	µm	ISO 13320, DIN ISO 8130-13
Particle size, D(50)	**20**	µm	ISO 13320, DIN ISO 8130-13
Particle size, D(90)	**35**	µm	ISO 13320, DIN ISO 8130-13

Characteristics

Applications
Electrical and Electronical

Processing
Electrostatic coating

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

Features
Dispersion coating

Delivery form
Ultrafine powder (UFP)

Chemical Resistance
General chemical resistance

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