

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

Tensile modulus

Value

3700

Unit

MPa

Test Standard

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
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	Value	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	Value	Unit	Test Standard
Density	1300	kg/m ³	ISO 1183
Density	1300	kg/m ³	ASTM D 792

Burning Behav.	Value	Unit	Test Standard
Burnin behav. at thickness h	V-0	class	IEC 60695-11-10
Thickness tested	3.2	mm	-

Rheological properties

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

Powder properties

	Value	Unit	Test Standard
Bulk density, powder	230	g/l	EN ISO 60
BET-Surface	6	m ² /g	ISO 9277
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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Evonik Operations GmbH
Smart Materials
High Performance Polymers
45772 Marl / Germany
Tel: +49 2365 49-9878
evonik-hp@evonik.com
www.plastics-database.com