

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.

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
dry
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	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/m ³	ISO 1183
Bulk density, Granulate	0.2	kg/m ³	-
Density	1300	kg/m ³	ASTM D 792

Burning Behav.	dry	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

Melt volume-flow rate, MVR

dry
Unit
Test Standard
150

cm³/10min

ISO 1133

Temperature

380

°C

-

Load

5

kg

-

Powder properties

Bulk density, powder

dry
Unit
Test Standard
200

g/l

EN ISO 60

Particle size, D(50)

550

μm

ISO 13320, DIN ISO 8130-13

Test specimen production

Injection Molding, melt temperature

dry
Unit
Test Standard
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