

VESTAKEEP® 4000 FP
PEEK

Evonik Operations GmbH

Unreinforced, high-viscosity polyether ether ketone fine powder

VESTAKEEP® 4000 FP is an unreinforced, highviscosity polyether ether ketone fine powder. It can be used as a basic resin or in blends with different additives for manufacturing compression molding parts.

The semi-crystalline polymer features superior thermal and chemical resistance. VESTAKEEP® 4000 FP is of low flammability.

VESTAKEEP® 4000 FP is supplied as powder in boxes with moisture-proof polyethyleneliners.

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 guidance processing of VESTAKEEP® 4000 FP 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.

Rheological properties	Value	Unit	Test Standard
ISO Data			
Melt volume-flow rate, MVR	11	cm ³ /10min	ISO 1133
Temperature	380	°C	-
Load	5	kg	-

Mechanical Properties	Value	Unit	Test Standard
ISO Data			
Tensile Modulus	3500	MPa	ISO 527
Yield stress	96	MPa	ISO 527
Yield strain	5	%	ISO 527
Nominal strain at break	30	%	ISO 527
Impact Strength (Charpy), +23 °C	no break	kJ/m ²	ISO 179/1eU
Impact Strength (Charpy), -30 °C	no break	kJ/m ²	ISO 179/1eU
Notched Impact Strength (Charpy), +23 °C	7	kJ/m ²	ISO 179/1eA
Type of failure	C	-	-
Notched Impact Strength (Charpy), -30 °C	6	kJ/m ²	ISO 179/1eA
Type of failure	C	-	-

Thermal Properties	Value	Unit	Test Standard
ISO Data			
Melting Temperature (10 °C/min)	340	°C	ISO 11357-1/-3
Temp. of deflection under load (1.80 MPa)	150	°C	ISO 75-1/-2
Temp. of deflection under load (0.45 MPa)	205	°C	ISO 75-1/-2
Vicat softening temperature, 50 °C/h 50N	305	°C	ISO 306

Other Properties	Value	Unit	Test Standard
ISO Data			
Density	1300	kg/m ³	ISO 1183

Characteristics
Processing

Transfer Molding, Compression Molding

Features

Blending Resin

Delivery form

Powder

Chemical Resistance

General Chemical Resistance