

Product Information

VESTAKEEP® Easy Slide 1**CARBON FIBER-REINFORCED, WEAR AND FRICTION MODIFIED
POLYETHER ETHER KETONE**

VESTAKEEP® Easy Slide I is a carbon fiber-reinforced, wear and friction modified polyether ether ketone for injection molding.

Parts made from VESTAKEEP® Easy Slide I are flame resistant and can be used for bearing bushing or gearbox parts due to the self-lubricating effect.

The semi-crystalline polymer features superior, thermal and chemical resistance.

VESTAKEEP® Easy Slide I can be processed by common machines for thermoplastics.

We recommend a melt temperature between 380°C and 400°C during the injection molding process. The mold temperature should be within a range of 160°C to 200°C, preferably 180°C.

VESTAKEEP® Easy Slide I is supplied as granules in 25 kg 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.

The use of colorants may affect property values.

The results shown have been generated from a low number of production lots. Therefore, they are preliminary and not yet the result of a statistical evaluation. Therefore they must not be used to establish specifications.

For information about processing of VESTAKEEP® Easy Slide I, please follow the general recommendations in our brochure "VESTAKEEP® PEEK Processing Recommendations".

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**

Industry and Engineering

Resistance to

Heat (thermal stability), Fire / burn

Processing
Injection molding

Additives
Carbon fibers

Delivery form
Pellets, Granules

Mechanical properties ISO	Value	Unit	Test Standard
Tensile modulus	12000	MPa	ISO 527
Stress at break	160	MPa	ISO 527
Nominal strain at break, tB	2	%	ISO 527
Charpy notched impact strength, +23°C	5.5	kJ/m ²	ISO 179/1eA
Type of failure	C	-	-
Friction coefficient f, parallel	0.21	-	ISO 7148-2
Friction coefficient f, normal	0.24	-	ISO 7148-2
Wear coefficient k, parallel	3.8	10E-6 mm ³ /Nm	ISO 7148-2
Wear coefficient k, normal	2.2	10E-6 mm ³ /Nm	ISO 7148-2
Test speed	0.5	m/s	ISO 7148-2
Load	4	MPa	ISO 7148-2
Friction partner	Stahl	-	ISO 7148-2

Thermal properties	Value	Unit	Test Standard
Melting temperature	340	°C	ISO 11357-1/-3
Temp. of deflection under load A, 1.80 MPa	321	°C	ISO 75-1/-2
Temp. of deflection under load B, 0.45 MPa	338	°C	ISO 75-1/-2
Coeff. of linear therm. expansion, 23°C to 55 °C, parallel	10	E-6/K	ISO 11359-1/-2
Coeff. of linear therm. expansion, 23°C to 55 °C, normal	50	E-6/K	ISO 11359-1/-2
Melting Temperature	340	°C	ASTM D 3418

Physical properties	Value	Unit	Test Standard
Density	1480	kg/m ³	ISO 1183

Moisture content	0.06	Gew.-%	ISO 15512
Density	1480	kg/m ³	ASTM D 792

Electrical properties	Value	Unit	Test Standard
Volume resistivity, V	1000	Ohm*m	IEC 62631-3-1
Surface resistance, RSD	1.00E5	Ohm	IEC 62631-3-2

Rheological properties	Value	Unit	Test Standard
Melt volume-flow rate, MVR	20	cm ³ /10min	ISO 1133
Temperature	380	°C	-
Load	5	kg	-
Melt volume-flow rate, MVR	20	cm ³ /10min	ISO 1133
Temperature	380	°C	-
Load	5	kg	-
Molding shrinkage, parallel	0.3	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7	%	ISO 294-4, 2577
Mold temperature	180	°C	-
Melt temperature	380	°C	-

Test specimen production	Value	Unit	Test Standard
Injection Molding, melt temperature	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, Encapsulation

Special Characteristics

Semi-crystalline

Color

Natural color

Additives

External lubrication

Features

High coefficient of friction

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