

Product Information

**VESTAKEEP® 50001XT BK**

**HIGH VISCOSITY, CROSS-LINKABLE, UNREINFORCED,  
UNLUBRICATED POLYETHER ETHER KETONE**



**VESTAKEEP® 50001XT BK** is a high viscosity, unreinforced, unlubricated polyether ether ketone for injection molding and extrusion and can be cross-linked after processing by heat treatment.

The semi-crystalline polymer features superior property retention at elevated temperatures combined with the chemical resistance of standard PEEK. Parts made from VESTAKEEP® 50001XT BK feature a very high resistance to creep.

VESTAKEEP® 50001XT BK can be processed by common machines for PEEK processing.

VESTAKEEP® 50001XT BK is supplied as granules in 25 kg boxes with moisture-proof polyethylene liners.

As VESTAKEEP® 50001XT BK is a reactive system we recommend low melt temperatures and short cycle times. Please contact us so our experts can develop the right solution for application together with you.

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.

**Key Features**

**Industrial Sector**  
Energy, Oil and Gas

**Delivery form**  
Pellets, Granules

**Processing**  
Injection molding

**Resistance to**  
Heat (thermal stability), Fire / burn

Mechanical properties ISO	dry	Unit	Test Standard
Friction coefficient f, parallel	<b>0.27</b>	-	ISO 7148-2
Wear coefficient k, parallel	<b>2</b>	10E-6 mm <sup>3</sup> /Nm	ISO 7148-2
Test speed	<b>0.5</b>	m/s	ISO 7148-2

Load	<b>580</b>	psi	ISO 7148-2
Friction partner	<b>steel</b>	-	ISO 7148-2

Thermal properties	dry	Unit	Test Standard
Melting temperature	<b>666</b>	°F	ISO 11357-1/-3
Glass transition temperature, DSC	<b>352</b>	°F	ISO 11357-1/-2

Physical properties	dry	Unit	Test Standard
Density	<b>1.3</b>	g/cm <sup>3</sup>	ISO 1183
Moisture content	<b>0.04</b>	wt.-%	ISO 15512
Density	<b>1.3</b>	g/cm <sup>3</sup>	ASTM D 792
Shore D hardness, 1s, annealed	<b>90</b>	-	ASTM D 2240

Rheological properties	dry	Unit	Test Standard
Melt volume-flow rate, MVR	<b>7.4</b>	cm <sup>3</sup> /10min	ISO 1133
Temperature	<b>380</b>	°C	-
Load	<b>5</b>	kg	-

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	<b>675</b>	°F	ISO 294
Injection Molding, mold temperature	<b>424</b>	°F	ISO 294
Injection Molding, injection velocity	<b>7.87</b>	in/s	ISO 294

### Characteristics

#### Special Characteristics

Semi-crystalline, Crosslinkable, High viscosity

#### Color

Black

#### Features

Creep resistance, Low coefficient of friction