

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	0.27	-	ISO 7148-2
Wear coefficient k, parallel	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	steel	-	ISO 7148-2

Thermal properties	dry	Unit	Test Standard
Melting temperature	352	°C	ISO 11357-1/-3
Glass transition temperature, DSC	178	°C	ISO 11357-1/-2

Physical properties	dry	Unit	Test Standard
Density	1300	kg/m ³	ISO 1183
Moisture content	0.04	Gew.-%	ISO 15512
Density	1300	kg/m ³	ASTM D 792
Shore D hardness, 1s, annealed	90	-	ASTM D 2240

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

Test specimen production	dry	Unit	Test Standard
Injection Molding, melt temperature	357	°C	ISO 294
Injection Molding, mold temperature	218	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294

Characteristics

Special Characteristics

Semi-crystalline, Crosslinkable, High viscosity

Color

Black

Features

Creep resistance, Low coefficient of friction