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.

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.

The values presented are typical or average values, they do not constitute a specification.

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/m³	ISO 1183
Moisture content	**0.04**	Gew.-%	ISO 15512
Density	**1300**	kg/m³	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**	cm³/10min	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