

## Product Information

### VESTORAN® X7342

**Modified polyphenylene ether (PPE), high heat resistant, 20 % glass-fiber reinforced**

VESTORAN X7342 is the registered trademark of the Evonik Degussa GmbH for molding compounds containing poly-2,6-dimethyl-1,4-phenylene ether as polymeric constituent (poly-phenylene ether, PPE, also referred to as PPO).

As a material of amorphous structure, VESTORAN X7342 shows very small mold shrinkage. Therefore molded parts have a very low tendency to warp.

Moldings of VESTORAN X7342 are dimensionally stable and hydrolysis resistant even in hot water, but are more sensitive to organic solvents than semi-crystalline plastics. VESTORAN X7342 is resistant to aqueous alkalines and acids, certain alcohols, and glycol solutions.

Due to the glass-fiber reinforcement the compound combines outstanding heat deflection temperature under load with high strength and rigidity. The even smaller shrinkage compared to non-reinforced VESTORAN depends on the orientation of the glass fibers in the molded part.

VESTORAN X7342 is supplied as cylindrical granules in polyethylene packaging.

Processing advice is given in a separate product information.

Property	Test method		Unit	VESTORAN X7342
	international	national		
Density	23°C	ISO 1183 DIN EN ISO 1183	g/cm <sup>3</sup>	1.19
Tensile test		ISO 527-1 DIN EN ISO 527-1		
Tensile strength		ISO 527-2 DIN EN ISO 527-2	MPa	100
Strain at break			%	2.5
Tensile modulus		ISO 527-1 DIN EN ISO 527-1 ISO 527-2 DIN EN ISO 527-2	MPa	5900
CHARPY impact strength	23°C	ISO 179/1eU DIN EN ISO 179/1eU		
			kJ/m <sup>2</sup>	45 C <sup>1)</sup>
CHARPY notched impact strength	23°C	ISO 179/1eA DIN EN ISO 179/1eA		
			kJ/m <sup>2</sup>	14 C <sup>1)</sup>
Temperature of deflection under load		ISO 75-1 DIN EN ISO 75-1 ISO 75-2 DIN EN ISO 75-2		
Method A	1.8 MPa		°C	165
Method B	0.45 MPa		°C	170
Vicat softening temperature		ISO 306 DIN EN ISO 306		
Method A	10 N		°C	180
Method B	50 N		°C	170
Dissipation factor		IEC 60250 DIN VDE 0303-T4		
	100 Hz		10 <sup>-4</sup>	80
	1 MHz		10 <sup>-4</sup>	10
Electric strength	K20/P50	IEC 60243-1 IEC 60243-1	kV/mm	29
Comparative tracking index		IEC 60112 IEC 60112		
Test solution A	CTI			175
	100 drops value			150
Volume resistivity		IEC 60093 IEC 60093	Ohm ·cm	10 <sup>13</sup>
Spec.surface resistance		IEC 60093 IEC 60093	Ohm	10 <sup>15</sup>
Surface resistance R <sub>0A</sub>		IEC 60093 IEC 60093	Ohm	10 <sup>14</sup>
Melt volume-flow rate (MVR)	300°C/21.6kg	ISO 1133 DIN EN ISO 1133		
			cm <sup>3</sup> /10 min	approx. 40
Mold shrinkage		determined on 2 mm sheets		
in flow direction		with film gate at rim	%	0.23
in transverse direction		mold temperature 80°C, ISO294-4	%	0.43
Post shrinkage		determined on 2 mm sheets		
in flow direction		with film gate at rim	%	0.05
in transverse direction		after 4 h heat aging at 150°C, ISO 294-4	%	0.06

Pigmentation may affect values.

<sup>1)</sup> C = Complete break, incl. hinge break H

® = registered trademark