

## Evonik Corporation Vestodur® GF20-FR5 20% Glass Reinforced, Flame Retardant PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT) , Polybutylene Terephthalate (PBT), Glass Fiber Filled, Flame Retardant

### Material Notes:

Description: )VESTODUR GF20-FR5 is a 20 % glass fiber reinforced semicrystalline thermoplastic compound for injection molding, based on polybutylene terephthalate (PBT). It has a white color. Test bars made of these compounds are rated V-0 according to UL94 by Underwriters Laboratories Inc., self-extinguishing and non-dripping. The compounds are especially suitable for parts which are subjected to high mechanical and thermal loads. Information provided by degussa.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Evonik-Corporation-Vestodur-GF20-FR5-20-Glass-Reinforced-Flame-Retardant-PBT.php](http://www.lookpolymers.com/polymer_Evonik-Corporation-Vestodur-GF20-FR5-20-Glass-Reinforced-Flame-Retardant-PBT.php)

Physical Properties	Metric	English	Comments
Density	1.65 g/cc	0.0596 lb/in <sup>3</sup>	ISO 1183
Water Absorption at Saturation	0.40 %	0.40 %	ISO 62
Linear Mold Shrinkage	0.0020 - 0.0040 cm/cm @Thickness 2.00 mm	0.0020 - 0.0040 in/in @Thickness 0.0787 in	sheet with film gate at rim, mold temperature 80°C
Linear Mold Shrinkage, Transverse	0.016 - 0.018 cm/cm	0.016 - 0.018 in/in	
Melt Flow	37.95 g/10 min @Load 2.16 kg, Temperature 250 °C	37.95 g/10 min @Load 4.76 lb, Temperature 482 °F	ISO 1133

Mechanical Properties	Metric	English	Comments
Hardness, Shore D	83	83	ISO 868
Tensile Strength at Break	110 MPa	16000 psi	ISO 527-1/2
Elongation at Break	2.2 %	2.2 %	ISO 527-1/2
Tensile Modulus	8.00 GPa	1160 ksi	ISO 527-1/-2
Charpy Impact Unnotched	2.50 J/cm <sup>2</sup> @Temperature -30.0 °C	11.9 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eU
	2.50 J/cm <sup>2</sup> @Temperature 23.0 °C	11.9 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU
Charpy Impact, Notched	0.600 J/cm <sup>2</sup> @Temperature -30.0 °C	2.86 ft-lb/in <sup>2</sup> @Temperature -22.0 °F	ISO 179/1eA
	0.600 J/cm <sup>2</sup>	2.86 ft-lb/in <sup>2</sup>	

Mechanical Properties	Metric	English	ISO 179/1eA Comments
	@Temperature 23.0 °C	@Temperature 73.4 °F	

Thermal Properties	Metric	English	Comments
CTE, linear	50.0 $\mu\text{m}/\text{m}\cdot\text{°C}$ @Temperature 23.0 - 55.0 °C	27.8 $\mu\text{in}/\text{in}\cdot\text{°F}$ @Temperature 73.4 - 131 °F	Longitudinal; ISO 11359, DIN 53752
Vicat Softening Point	212 °C	414 °F	Method B, 50 N; ISO 306
	218 °C	424 °F	Method A, 10 N; ISO 306
Flammability, UL94	V-0 @Thickness 0.800 mm	V-0 @Thickness 0.0315 in	IEC 60695
	V-0 @Thickness 1.60 mm	V-0 @Thickness 0.0630 in	IEC 60695

Electrical Properties	Metric	English	Comments
Volume Resistivity	1.00e+16 ohm-cm	1.00e+16 ohm-cm	IEC 60093
Surface Resistance	1.00e+13 ohm	1.00e+13 ohm	IEC 60093
Comparative Tracking Index	150 V	150 V	100 drops value; IEC 60112
	175 V	175 V	Test Solution A CTI; IEC 60112

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