

Product Texts

Glass fiber-reinforced polybutylene terephthalate compound

VESTODUR® GF10 NC is a glass fiber-reinforced (10%), semicrystalline, thermoplastic resin based on polybutylene terephthalate (PBT).

VESTODUR® GF10 NC is suitable for the injection molding of parts with high mechanical and thermal resistance.

The compound is supplied as cylindrical pellets in polyethylene packaging.

The use of colorants may affect property values.

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

FOR FURTHER INFORMATION PLEASE CONTACT US AT EVONIK-HP@EVONIK.COM
OR VISIT OUR PRODUCT AT WWW.VESTODUR.COM

Processing/Physical Characteristics	Value	Unit	Test Standard
ISO Data			
^[C] Melt volume-flow rate, MVR	23	cm ³ /10min	ISO 1133
Temperature	250	°C	-
Load	2.16	kg	-
^[C] Molding shrinkage, parallel	0.4	%	ISO 294-4, 2577
^[C] Molding shrinkage, normal	1.6	%	ISO 294-4, 2577
^[C] Ejection temperature	220	°C	-

[C]: CAMPUS

Mechanical properties	Value	Unit	Test Standard
ISO Data			
^[C] Tensile Modulus	4900	MPa	ISO 527
^[C] Tensile creep modulus, 1h	4600	MPa	ISO 899-1
^[C] Tensile creep modulus, 1000h	3100	MPa	ISO 899-1
^[C] Charpy impact strength, +23°C	30	kJ/m ²	ISO 179/1eU
^[C] Type of failure	C	-	-
^[C] Charpy impact strength, -30°C	30	kJ/m ²	ISO 179/1eU
^[C] Type of failure	C	-	-
^[C] Charpy notched impact strength, +23°C	5.5	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C	-	-
^[C] Charpy notched impact strength, -30°C	5	kJ/m ²	ISO 179/1eA
^[C] Type of failure	C	-	-
^[C] Tensile notched impact strength, +23°C	40	kJ/m ²	ISO 8256/1
^[C] Shore D hardness	81	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	Value	Unit	Test Standard
ISO Data			
^[C] Melting temperature, 10°C/min	223	°C	ISO 11357-1/-3
^[C] Glass transition temperature, 10°C/min	45	°C	ISO 11357-1/-2
^[C] Temp. of deflection under load, 1.80 MPa	190	°C	ISO 75-1/-2
^[C] Temp. of deflection under load, 0.45 MPa	215	°C	ISO 75-1/-2
^[C] Vicat softening temperature, B	205	°C	ISO 306
^[C] Coeff. of linear therm. expansion, parallel	70	E-6/K	ISO 11359-1/-2
^[C] Coeff. of linear therm. expansion, normal	110	E-6/K	ISO 11359-1/-2

^[C] Burning Behav. at 1.5 mm nom. thickn.	HB	class	IEC 60695-11-10
Thickness tested	1.5	mm	-
Yellow Card available	yes	-	-
^[C] Burning Behav. at thickness h	HB	class	IEC 60695-11-10
Thickness tested	0.8	mm	-
Yellow Card available	yes	-	-

[C]: CAMPUS

Electrical properties	Value	Unit	Test Standard
ISO Data			
^[C] Relative permittivity, 100Hz	3.6	-	IEC 62631-2-1
^[C] Relative permittivity, 1MHz	3.9	-	IEC 62631-2-1
^[C] Dissipation factor, 100Hz	20	E-4	IEC 62631-2-1
^[C] Dissipation factor, 1MHz	190	E-4	IEC 62631-2-1
^[C] Volume resistivity	>1E13	Ohm*m	IEC 62631-3-1
^[C] Surface resistivity	1E14	Ohm	IEC 62631-3-2
^[C] Comparative tracking index	325	-	IEC 60112

[C]: CAMPUS

Other properties	Value	Unit	Test Standard
^[C] Water absorption	0.5	%	Sim. to ISO 62
^[C] Humidity absorption	0.1	%	Sim. to ISO 62
^[C] Density	1380	kg/m ³	ISO 1183

[C]: CAMPUS

Test specimen production	Value	Unit	Test Standard
ISO Data			
^[C] Processing conditions acc. ISO	7792	-	ISO-2
^[C] Injection Molding, melt temperature	260	°C	ISO 294
Injection Molding, mold temperature	80	°C	ISO 294
Injection Molding, injection velocity	200	mm/s	ISO 294
Injection Molding, pressure at hold	70	MPa	ISO 294

[C]: CAMPUS

Characteristics

Processing

Injection Molding

Delivery form

Pellets, Natural Color

Additives

Release agent

Special Characteristics

Heat stabilized or stable to heat

Regional Availability

North America, Europe, Asia Pacific, South and Central America, Near East/Africa