VESTODUR® X4877 NC

PBT-I-GF30 Evonik Operations GmbH

Product Texts

Easy-flow, glass fiber-reinforced polybutylene terephthalate compound with increased impact strength

VESTODUR® X4877 is an easy-flow, glass fiber-reinforced (30%) polybutylene terephthalate compound (PBT) with increased impact strength for injection molding.

This compound is especially suitable for the manufacture of parts which are subjected to high mechanical and thermal loads. Compared with commonly used glass fiber-reinforced
PBT compounds with a similar stiffness VESTODUR® X4877 has an increased impact strength and also a higher strain at break.

VESTODUR® X4877 is supplied as cylindrical pellets in polyethylene packaging.

For further information about processing of VESTODUR® X4877, please follow the general recommendations in our brochure "VESTODUR® Handling and Processing".
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	dry / cond	Unit	Test Standard
ISO Data			
[C] Melt volume-flow rate, MVR	**20 / ***	cm³/10min	ISO 1133
Temperature	**250 / ***	°C	-
Load	**2.16 / ***	kg	-
[C] Molding shrinkage, parallel	**0.3 / ***	%	ISO 294-4, 2577
[C] Molding shrinkage, normal	**1.0 / ***	%	ISO 294-4, 2577
[C] Density of melt	**1270**	kg/m³	-
[C] Thermal conductivity of melt	**0.26**	W/(m K)	-
[C] Spec. heat capacity of melt	**1820**	J/(kg K)	-

[C]: CAMPUS

Mechanical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Tensile Modulus	**5200 / -**	MPa	ISO 527
[C] Stress at break	**100 / -**	MPa	ISO 527
[C] Strain at break	**5.5 / -**	%	ISO 527
[C] Tensile creep modulus, 1h	*** / 5200**	MPa	ISO 899-1
[C] Tensile creep modulus, 1000h	*** / 4500**	MPa	ISO 899-1
[C] Charpy impact strength, +23°C	**80 / -**	kJ/m²	ISO 179/1eU
[C] Type of failure	**C / -**	-	-
[C] Charpy notched impact strength, +23°C	**16 / -**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C / -**	-	-
[C] Charpy notched impact strength, -30°C	**13 / -**	kJ/m²	ISO 179/1eA
[C] Type of failure	**C / -**	-	-
[C] Shore D hardness	**79 / ***	-	ISO 7619-1

[C]: CAMPUS

Thermal properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Melting temperature, 10°C/min	**200 / ***	°C	ISO 11357-1/-3
[C] Temp. of deflection under load, 1.80 MPa	**175 / ***	°C	ISO 75-1/-2
[C] Temp. of deflection under load, 0.45 MPa	**195 / ***	°C	ISO 75-1/-2
[C] Vicat softening temperature, B	**165 / ***	°C	ISO 306
[C] Coeff. of linear therm. expansion, parallel	**50 / ***	E-6/K	ISO 11359-1/-2
[C] Burning Behav. at 1.5 mm nom. thickn.	**HB / ***	class	IEC 60695-11-10
Thickness tested	**1.6 / ***	mm	-
[C] Burning Behav. at thickness h	**HB / ***	class	IEC 60695-11-10
Thickness tested	**0.8 / ***	mm	-

[C]: CAMPUS

Electrical properties	dry / cond	Unit	Test Standard
ISO Data			
[C] Relative permittivity, 100Hz	**4.7 / -**	-	IEC 62631-2-1
[C] Dissipation factor, 100Hz	**200 / -**	E-4	IEC 62631-2-1
[C] Volume resistivity	**1E12 / -**	Ohm*m	IEC 62631-3-1
[C] Surface resistivity	*** / 1E13**	Ohm	IEC 62631-3-2
[C] Comparative tracking index	**600 / -**	-	IEC 60112

[C]: CAMPUS

Other properties	dry / cond	Unit	Test Standard
[C] Water absorption	**0.25 / ***	%	Sim. to ISO 62
[C] Density	**1490 / -**	kg/m³	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
Lubricants, Release agent

Special Characteristics
High impact or impact modified, Heat stabilized or stable to heat

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