# VESTODUR® X4621

PBT | Evonik Operations GmbH

## Product Texts

**Medium viscosity polybutylene terephthalate resin with processing aids**

**VESTODUR® X4621** is a medium viscosity, fast solidifying polybutylene terephthalate resin (PBT).

VESTODUR® X4621 can be used for the injection molding process.

The resin is supplied as cylindrical granules, ready for processing.

For information about VESTODUR® X4621, please follow the general recommendations in our flyer “VESTODUR® Polybutylene terephthalate - Compounds”.

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 | **14** | cm³/10min | ISO 1133 |
| Temperature | **250** | °C | - |
| Load | **2.16** | kg | - |
| [C] Molding shrinkage, parallel | **1.6** | % | ISO 294-4, 2577 |
| [C] Molding shrinkage, normal | **1.6** | % | ISO 294-4, 2577 |
| [C] Density of melt | **1110** | kg/m³ | - |
| [C] Thermal conductivity of melt | **0.19** | W/(m K) | - |
| [C] Spec. heat capacity of melt | **1700** | J/(kg K) | - |

[C]: CAMPUS

| Mechanical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Tensile Modulus | **2600** | MPa | ISO 527 |
| [C] Yield stress | **58** | MPa | ISO 527 |
| [C] Yield strain | **10** | % | ISO 527 |
| [C] Nominal strain at break | **40** | % | ISO 527 |
| [C] Charpy impact strength, +23°C | **230** | kJ/m² | ISO 179/1eU |
| [C] Type of failure | **C(P)**[C(P)] | - | - |
| [C] Charpy impact strength, -30°C | **205** | kJ/m² | ISO 179/1eU |
| [C] Type of failure | **C** | - | - |
| [C] Charpy notched impact strength, +23°C | **4** | kJ/m² | ISO 179/1eA |
| [C] Type of failure | **C** | - | - |
| [C] Charpy notched impact strength, -30°C | **4** | kJ/m² | ISO 179/1eA |
| [C] Type of failure | **C** | - | - |
| [C] Shore D hardness | **77** | - | ISO 7619-1 |

C(P): 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 | **55** | °C | ISO 75-1/-2 |
| [C] Temp. of deflection under load, 0.45 MPa | **160** | °C | ISO 75-1/-2 |

| | | | |
|---|---|---|---|
| [C] Vicat softening temperature, B | **180** | °C | ISO 306 |
| [C] Coeff. of linear therm. expansion, parallel | **110** | 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 | **1.6** | mm | - |
| [C] Burning Behav. at thickness h | **HB** | class | IEC 60695-11-10 |
| Thickness tested | **0.8** | mm | - |
| [C] Oxygen index | **23** | % | ISO 4589-1/-2 |

[C]: CAMPUS

| Electrical properties | Value | Unit | Test Standard |
|---|---|---|---|
| **ISO Data** | | | |
| [C] Relative permittivity, 100Hz | **3.3** | - | IEC 62631-2-1 |
| [C] Relative permittivity, 1MHz | **3.5** | - | IEC 62631-2-1 |
| [C] Dissipation factor, 100Hz | **20** | E-4 | IEC 62631-2-1 |
| [C] Dissipation factor, 1MHz | **230** | E-4 | IEC 62631-2-1 |
| [C] Surface resistivity | **1E13** | Ohm | IEC 62631-3-2 |
| [C] Comparative tracking index | **600** | - | IEC 60112 |

[C]: CAMPUS

| Other properties | Value | Unit | Test Standard |
|---|---|---|---|
| [C] Water absorption | **0.45** | % | Sim. to ISO 62 |
| [C] Humidity absorption | **0.13** | % | Sim. to ISO 62 |
| [C] Density | **1310** | 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, Film Extrusion

**Delivery form**
Pellets, Granules

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