

**Product Texts**

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

**VESTODUR® X4877 BK V303909** 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 BK V303909 is supplied as cylindrical pellets in polyethylene packaging.

For information about VESTODUR® X4877 BK V303909, 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](mailto:EVONIK-HP@EVONIK.COM) OR VISIT OUR PRODUCT AT [WWW.VESTODUR.COM](http://WWW.VESTODUR.COM)

| <b>Processing/Physical Characteristics</b> | <b>Value</b> | <b>Unit</b>            | <b>Test Standard</b> |
|--|--------------|------------------------|----------------------|
| <b>ISO Data</b>                            |              |                        |                      |
| <sup>[C]</sup> Melt volume-flow rate, MVR  | <b>20</b>    | cm <sup>3</sup> /10min | ISO 1133             |
| Temperature                                | <b>250</b>   | °C                     | -                    |
| Load                                       | <b>2.16</b>  | kg                     | -                    |
| <sup>[C]</sup> Molding shrinkage, parallel | <b>0.3</b>   | %                      | ISO 294-4, 2577      |
| <sup>[C]</sup> Molding shrinkage, normal   | <b>1.0</b>   | %                      | ISO 294-4, 2577      |

[C]: CAMPUS

| <b>Mechanical properties</b>                         | <b>Value</b>                 | <b>Unit</b>       | <b>Test Standard</b> |
|--|------------------------------|-------------------|----------------------|
| <b>ISO Data</b>                                      |                              |                   |                      |
| <sup>[C]</sup> Tensile Modulus                       | <b>5600</b>                  | MPa               | ISO 527              |
| <sup>[C]</sup> Yield stress                          | <b>105</b>                   | MPa               | ISO 527              |
| <sup>[C]</sup> Yield strain                          | <b>5</b>                     | %                 | ISO 527              |
| <sup>[C]</sup> Nominal strain at break               | <b>5.5</b>                   | %                 | ISO 527              |
| <sup>[C]</sup> Charpy impact strength, +23°C         | <b>83</b>                    | kJ/m <sup>2</sup> | ISO 179/1eU          |
| <sup>[C]</sup> Type of failure                       | <b>C</b>                     | -                 | -                    |
| <sup>[C]</sup> Charpy notched impact strength, +23°C | <b>16</b>                    | kJ/m <sup>2</sup> | ISO 179/1eA          |
| <sup>[C]</sup> Type of failure                       | <b>C(P)<sup>[C(P)]</sup></b> | -                 | -                    |
| <sup>[C]</sup> Charpy notched impact strength, -30°C | <b>12</b>                    | kJ/m <sup>2</sup> | ISO 179/1eA          |
| <sup>[C]</sup> Type of failure                       | <b>C</b>                     | -                 | -                    |
| <sup>[C]</sup> Shore D hardness                      | <b>79</b>                    | -                 | ISO 7619-1           |

C(P): CAMPUS

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

[C]: CAMPUS

| Electrical properties                       | Value       | Unit  | Test Standard |
|---|-------------|-------|---------------|
| <b>ISO Data</b>                             |             |       |               |
| <sup>[C]</sup> Relative permittivity, 100Hz | <b>4.7</b>  | -     | IEC 62631-2-1 |
| <sup>[C]</sup> Dissipation factor, 100Hz    | <b>200</b>  | E-4   | IEC 62631-2-1 |
| <sup>[C]</sup> Volume resistivity           | <b>1E12</b> | Ohm*m | IEC 62631-3-1 |
| <sup>[C]</sup> Comparative tracking index   | <b>600</b>  | -     | IEC 60112     |

[C]: CAMPUS

| Other properties                | Value       | Unit              | Test Standard  |
|---------------------------------|-------------|-------------------|----------------|
| <sup>[C]</sup> Water absorption | <b>0.25</b> | %                 | Sim. to ISO 62 |
| <sup>[C]</sup> Density          | <b>1490</b> | kg/m <sup>3</sup> | ISO 1183       |

[C]: CAMPUS

| Test specimen production                           | Value      | Unit | Test Standard |
|--|------------|------|---------------|
| <b>ISO Data</b>                                    |            |      |               |
| <sup>[C]</sup> Injection Molding, melt temperature | <b>260</b> | °C   | ISO 294       |
| Injection Molding, mold temperature                | <b>80</b>  | °C   | ISO 294       |
| Injection Molding, injection velocity              | <b>200</b> | mm/s | ISO 294       |

[C]: CAMPUS

**Characteristics**

**Processing**

Injection Molding

**Delivery form**

Pellets, Black

**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