

## SABIC Innovative Plastics Valox® K4530 PBT

Category : Polymer , Thermoplastic , Polyester, TP , Polybutylene Terephthalate (PBT)

### Material Notes:

15% glass reinforced PBT, Hydrolytically stable, High flow, Automotive connectors.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_SABIC-Innovative-Plastics-Valox-K4530-PBT.php](http://www.lookpolymers.com/polymer_SABIC-Innovative-Plastics-Valox-K4530-PBT.php)

| Physical Properties               | Metric                | English               | Comments     |
|-----------------------------------|-----------------------|-----------------------|--------------|
| Specific Gravity                  | 1.41 g/cc             | 1.41 g/cc             | ASTM D792    |
| Linear Mold Shrinkage, Flow       | 0.0070 - 0.0090 cm/cm | 0.0070 - 0.0090 in/in | SABIC Method |
|                                   | @Thickness 3.20 mm    | @Thickness 0.126 in   |              |
| Linear Mold Shrinkage, Transverse | 0.010 - 0.012 cm/cm   | 0.010 - 0.012 in/in   | SABIC Method |
|                                   | @Thickness 3.20 mm    | @Thickness 0.126 in   |              |

| Mechanical Properties     | Metric   | English   | Comments   |
|---------------------------|----------|-----------|--|
| Tensile Strength at Break | 82.0 MPa | 11900 psi | Type I, 5 mm/min; ASTM D638                        |
|                           | 89.0 MPa | 12900 psi | Type I, 5 mm/min; ASTM D638                        |
|                           | 98.0 MPa | 14200 psi | Type I, 5 mm/min; ASTM D638                        |
|                           | 103 MPa  | 14900 psi | Type I, 5 mm/min; ASTM D638                        |
| Tensile Strength, Yield   | 103 MPa  | 14900 psi | Type I, 5 mm/min; ASTM D638                        |
| Elongation at Break       | 2.3 %    | 2.3 %     | Type I, 5 mm/min; ASTM D638                        |
|                           | 2.5 %    | 2.5 %     | Type I, 5 mm/min; ASTM D638                        |
|                           | 3.8 %    | 3.8 %     | Flexural Strain, 1.3 mm/min, 50 mm span; ASTM D790 |
|                           | 4.0 %    | 4.0 %     | Type I, 5 mm/min; ASTM D638                        |
|                           | 4.0 %    | 4.0 %     | Type I, 5 mm/min; ASTM D638                        |
|                           | 6.0 %    | 6.0 %     | Flexural Strain, 1.3 mm/min, 50 mm span; ASTM D790 |
| Elongation at Yield       | 7.0 %    | 7.0 %     | Flexural Strain, 1.3 mm/min, 50 mm span; ASTM D790 |
|                           | 9.7 %    | 9.7 %     | Flexural Strain, 1.3 mm/min, 50 mm span; ASTM D790 |
|                           | 4.0 %    | 4.0 %     | Type I, 5 mm/min; ASTM D638                        |
| Tensile Modulus           |          |           | 5 mm/min; ASTM D638                                |

| Mechanical Properties   | 3.53 GPa<br>Metric | 515 ksi<br>English | Comments                          |
|-------------------------|--------------------|--------------------|-----------------------------------|
| Flexural Strength       | 150 MPa            | 21800 psi          | 1.3 mm/min, 50 mm span; ASTM D790 |
| Flexural Modulus        | 4.52 GPa           | 656 ksi            | 1.3 mm/min, 50 mm span; ASTM D790 |
|                         | 4.64 GPa           | 673 ksi            | 1.3 mm/min, 50 mm span; ASTM D790 |
|                         | 4.82 GPa           | 699 ksi            | 1.3 mm/min, 50 mm span; ASTM D790 |
|                         | 5.10 GPa           | 740 ksi            | 1.3 mm/min, 50 mm span; ASTM D790 |
| Izod Impact, Notched    | 0.580 J/cm         | 1.09 ft-lb/in      | ASTM D256                         |
| Izod Impact, Unnotched  | 4.00 J/cm          | 7.49 ft-lb/in      | ASTM D4812                        |
| Dart Drop, Total Energy | 4.00 J             | 2.95 ft-lb         | ASTM D3763                        |
|                         | 5.00 J             | 3.69 ft-lb         | ASTM D3763                        |
|                         | 6.00 J             | 4.43 ft-lb         | ASTM D3763                        |

| Thermal Properties                             | Metric                       | English                       | Comments              |
|--|------------------------------|-------------------------------|-----------------------|
| Deflection Temperature at 0.46 MPa<br>(66 psi) | 218 °C<br>@Thickness 3.20 mm | 424 °F<br>@Thickness 0.126 in | unannealed; ASTM D648 |
| Deflection Temperature at 1.8 MPa<br>(264 psi) | 193 °C<br>@Thickness 3.20 mm | 379 °F<br>@Thickness 0.126 in | unannealed; ASTM D648 |

## Contact Songhan Plastic Technology Co.,Ltd.

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