

DuPont Performance Polymers Crastin® SK601 NC010 PBT-GF10


Categories: [Polymer](#); [Thermoplastic](#); [Polyester, TP](#); [Polybutylene Terephthalate \(PBT\)](#); [Polybutylene Terephthalate \(PBT\), 10% Glass Fiber Filled](#)

Material Notes: 10% Glass Reinforced Polybutylene Terephthalate

Information provided by DuPont. This product line has remained with DuPont after the DuPont-Dow merger.

Vendors: No vendors are listed for this material. Please [click here](#) if you are a supplier and would like information on how to add your listing to this material.

| Physical Properties | Metric | English | Comments |
|------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|-------------------------------------|
| Density | 1.37 g/cc | 0.0495 lb/in ³ | ISO 1183 |
| Melt Density | 1.19 g/cc @Temperature >=225 °C | 0.0430 lb/in ³ @Temperature >=437 °F | |
| Water Absorption | 0.40 % @Thickness 2.00 mm | 0.40 % @Thickness 0.0787 in | Sim. to ISO 62 |
| Moisture Absorption | 0.200 % @Thickness 2.00 mm | 0.200 % @Thickness 0.0787 in | Sim. to ISO 62 |
| Viscosity Number | 110 cm ³ /g | 1.10 dl/g | ISO 307, 1157, 1628 |
| Linear Mold Shrinkage, Flow | 0.0070 cm/cm | 0.0070 in/in | ISO 294-4, 2577 |
| Linear Mold Shrinkage, Transverse | 0.012 cm/cm | 0.012 in/in | ISO 294-4, 2577 |
| Melt Flow  | 12.6 g/10 min @Load 2.16 kg, Temperature 250 °C | 12.6 g/10 min @Load 4.76 lb, Temperature 482 °F | from MVR and melt density; ISO 1133 |
| | 18 g/10 min @Load 2.16 kg, Temperature 250 °C | 18 g/10 min @Load 4.76 lb, Temperature 482 °F | ISO 1133 |
| Mechanical Properties | Metric | English | Comments |
| Tensile Strength at Break | 90.0 MPa | 13100 psi | ISO 527-1/-2 |
| Elongation at Break | 4.7 % | 4.7 % | ISO 527-1/-2 |
| Tensile Modulus | 4.50 GPa | 653 ksi | ISO 527-1/-2 |
| Flexural Strength | 140 MPa | 20300 psi | ISO 178 |
| Poissons Ratio | 0.36 | 0.36 | ISO 527-1/-2 |
| Izod Impact, Notched (ISO)  | 26.0 kJ/m ² @Temperature -30.0 °C | 12.4 ft-lb/in ² @Temperature -22.0 °F | ISO 180/1U |
| | 27.0 kJ/m ² @Temperature 23.0 °C | 12.8 ft-lb/in ² @Temperature 73.4 °F | ISO 180/1U |
| Izod Impact, Unnotched (ISO)  | 4.50 kJ/m ² @Temperature 23.0 °C | 2.14 ft-lb/in ² @Temperature 73.4 °F | ISO 180/1A |
| | 5.00 kJ/m ² @Temperature -30.0 °C | 2.38 ft-lb/in ² @Temperature -22.0 °F | ISO 180/1A |
| Charpy Impact Unnotched  | 4.00 J/cm ² @Temperature 23.0 °C | 19.0 ft-lb/in ² @Temperature 73.4 °F | ISO 179/1eU |
| | 4.00 J/cm ² @Temperature -30.0 °C | 19.0 ft-lb/in ² @Temperature -22.0 °F | ISO 179/1eU |
| Charpy Impact, Notched  | 0.600 J/cm ² @Temperature 23.0 °C | 2.86 ft-lb/in ² @Temperature 73.4 °F | ISO 179/1eA |
| | 0.600 J/cm ² @Temperature -30.0 °C | 2.86 ft-lb/in ² @Temperature -22.0 °F | ISO 179/1eA |
| Tensile Creep Modulus, 1 hour | 4000 MPa | 580000 psi | ISO 899-1 |
| Tensile Creep Modulus, 1000 hours | 2500 MPa | 363000 psi | ISO 899-1 |
| Electrical Properties | Metric | English | Comments |
| Volume Resistivity | >= 1.00e+15 ohm-cm | >= 1.00e+15 ohm-cm | IEC 62631-3-1 |
| Dielectric Constant  | 3.5 @Frequency 1.00e+6 Hz | 3.5 @Frequency 1.00e+6 Hz | IEC 62631-2-1 |
| | 3.9 @Frequency 100 Hz | 3.9 @Frequency 100 Hz | IEC 62631-2-1 |
| Dielectric Strength | 30.0 kV/mm | 762 kV/in | IEC 60243-1 |
| Dissipation Factor  | 0.0020 @Frequency 100 Hz | 0.0020 @Frequency 100 Hz | IEC 62631-2-1 |
| | 0.020 @Frequency 1.00e+6 Hz | 0.020 @Frequency 1.00e+6 Hz | IEC 62631-2-1 |
| Comparative Tracking Index | 300 V | 300 V | IEC 60112 |
| Thermal Properties | Metric | English | Comments |
| CTE, linear, Parallel to Flow | 60.0 μm/m-°C | 33.3 μin/in-°F | ISO 11359-1/-2 |
| CTE, linear, Transverse to Flow | 120 μm/m-°C | 66.7 μin/in-°F | ISO 11359-1/-2 |
| Specific Heat Capacity | 1.89 J/g-°C @Temperature >=225 °C | 0.452 BTU/lb-°F @Temperature >=437 °F | Melt |

| | | | |
|------------------------------------------------------------------------------------------------------|--------------------------------------|-------------------------------------------------------------|--------------------------|
| Thermal Conductivity | 0.240 W/m-K @Temperature >=225 °C | 1.67 BTU-in/hr-ft ² -°F @Temperature >=437 °F | Melt |
| Melting Point | 225 °C | 437 °F | 10°C/min; ISO 11357-1/-3 |
| Deflection Temperature at 0.46 MPa (66 psi) | 215 °C | 419 °F | ISO 75-1/-2 |
| Deflection Temperature at 1.8 MPa (264 psi) | 175 °C | 347 °F | ISO 75-1/-2 |
| Vicat Softening Point | 205 °C | 401 °F | 50°C/h, 50N; ISO 306 |
| Flammability, UL94  | HB @Thickness 0.750 mm | HB @Thickness 0.0295 in | IEC 60695-11-10 |
| | HB @Thickness 1.50 mm | HB @Thickness 0.0591 in | IEC 60695-11-10 |
| Flame Spread | 36.0 mm/min @Thickness 1.00 mm | 1.42 in/min @Thickness 0.0394 in | ISO 3795 (FMVSS 302) |
| Oxygen Index | 20 % | 20 % | ISO 4589-1/-2 |

| Processing Properties | Metric | English | Comments |
|-----------------------|------------------|------------------|-------------------------------|
| Melt Temperature | 240 - 260 °C | 464 - 500 °F | Injection |
| | 250 °C | 482 °F | Injection Optimum |
| Mold Temperature | 30.0 - 130 °C | 86.0 - 266 °F | Injection |
| | 80.0 °C | 176 °F | Injection Optimum |
| Ejection Temperature | 170 °C | 338 °F | Injection |
| Drying Temperature | 120 °C | 248 °F | Injection |
| Dry Time | 2.00 - 4.00 hour | 2.00 - 4.00 hour | Dehumidified Dryer; Injection |
| Moisture Content | 0.040 % | 0.040 % | Injection |
| Hold Pressure | 60.0 MPa | 8700 psi | Injection |

Descriptive Properties

| | | |
|-----------------------------------|---------------------------|----------------------|
| Additives | Release agent | |
| Back pressure | As low as possible | Injection |
| Delivery form | Pellets | |
| Drying Recommended | yes | Injection |
| FMVSS Class | B | ISO 3795 (FMVSS 302) |
| Fogging G-value (condensate) (mg) | 0.1 | ISO 6452 |
| Hold pressure time (s/mm) | 3 | Injection |
| Odor | 3 | VDA 270 |
| Part Marking Code | PBT-GF10 | ISO 11469 |
| Processing | Injection Molding | |
| Regional Availability | Asia Pacific | |
| | Europe | |
| | Global | |
| | Near East/Africa | |
| | North America | |
| | South and Central America | |
| Resin Identification | PBT-GF10 | ISO 1043 |

Some of the values displayed above may have been converted from their original units and/or rounded in order to display the information in a consistent format. Users requiring more precise data for scientific or engineering calculations can click on the property value to see the original value as well as raw conversions to equivalent units. We advise that you only use the original value or one of its raw conversions in your calculations to minimize rounding error. We also ask that you refer to MatWeb's [terms of use](#) regarding this information. [Click here](#) to view all the property values for this datasheet as they were originally entered into MatWeb.