# Ultradur® B 4040 G10 High Speed BK15029

## Polybutylene Terephthalate

| Product Description |
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| Ultradur B 4040 G10 High Speed BK15029 is a high flow, fast cycling with low warpage, 50% glass filled, injection molding PBT for industrial parts, rigid tough and dimensional stable applications. |

| General | | | |
| --- | --- | --- | --- |
| Material Status | • Commercial: Active | | |
| Availability | • North America | | |
| Filler / Reinforcement | • Glass Fiber Reinforcement, 50% Filler by Weight | | |
| Features | • Fast Molding Cycle<br>• Good Dimensional Stability | • High Flow<br>• Low Warpage | |
| Uses | • Housings | • Industrial Applications | • Printed Circuit Boards |
| RoHS Compliance | • RoHS Compliant | | |
| Processing Method | • Injection Molding | | |

| Physical | Nominal Value | Unit | Test Method |
| --- | --- | --- | --- |
| Density | 1760 | kg/m³ | ISO 1183 [2] |
| Melt volume-flow rate (275°C/5.0 kg) | 130 | cm³/10min | ISO 1133 [2] |
| Molding Shrinkage | | | ISO 294-4 |
| Across Flow | 0.30 | % | |
| Flow | 0.80 | % | |
| Water Absorption | | | ISO 62 [2] |
| Saturation | 0.40 | % | |
| Equilibrium | 0.12 | % | |
| Viscosity Number | 75.0 | cm³/g | ISO 1628 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile modulus | 18400 | MPa | ISO 527-2 [2] |
| Tensile Stress (Break) | 150 | MPa | ISO 527-2 [2] |
| Tensile Strain (Break) | 1.2 | % | ISO 527-2 [2] |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Charpy notched impact strength (23°C) | 10.0 | kJ/m² | ISO 179/1eA [2] |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load | | | ISO 75-2 [2] |
| 0.45 MPa | 220 | °C | |
| 1.8 MPa | 205 | °C | |
| Melting Temperature (DSC) | 223 | °C | ISO 3146 |
| CLTE - Flow | 0.000025 | cm/cm/°C | ISO 11359-2 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface resistivity | 1.0E+13 | ohms | IEC 60093 [2] |
| Volume resistivity | > 1.0E+11 | ohm·m | IEC 60093 [2] |
| Relative Permittivity | | | IEC 60250 [2] |
| 100 Hz | 4.70 | | |
| 1 MHz | 4.50 | | |
| Dissipation Factor | | | IEC 60250 [2] |
| 100 Hz | 20 | | |
| 1 MHz | 150 | | |
| Comparative tracking index | 225 | | IEC 60112 [2] |

**Notes**

[1] Typical properties: these are not to be construed as specifications.

[2] Tested in accordance with ISO 10350. 23°C/50%r.h. unless otherwise noted.