

**HiFill® PBT/ASA GF10 BK**

 Techmer Polymer Modifiers - *Polybutylene Terephthalate*
**General Information**
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|                        |   |
|------------------------|---|
| Material Status        | • Commercial: Active                    |
| Availability           | • North America                         |
| Filler / Reinforcement | • Glass Fiber, 10% Filler by Weight     |
| Features               | • Foamable                              |
| Appearance             | • Colors Available      • Natural Color |
| Forms                  | • Pellets                               |
| Processing Method      | • Injection Molding                     |

**Properties <sup>1</sup>**

| <b>Physical</b>   | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
|---|----------------------|-------------|--------------------|
| Density / Specific Gravity                              | 1.35                 |             | ASTM D792          |
| Molding Shrinkage - Flow (0.125 in)                     | 5.0E-3               | in/in       | ASTM D955          |
| Water Absorption (24 hr)                                | 0.12                 | %           | ASTM D570          |
| <b>Mechanical</b>                                       | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Tensile Strength  | 12500                | psi         | ASTM D638          |
| Tensile Strength (Yield)                                | 7500                 | psi         | ASTM D638          |
| Tensile Elongation (Break)                              | 5.5                  | %           | ASTM D638          |
| Flexural Modulus  | 699000               | psi         | ASTM D790          |
| Flexural Strength                                       | 22500                | psi         | ASTM D790          |
| <b>Impact</b>   | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Notched Izod Impact                                     | 1.2                  | ft·lb/in    | ASTM D256          |
| Unnotched Izod Impact                                   | 7.5                  | ft·lb/in    | ASTM D4812         |
| <b>Hardness</b>   | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Rockwell Hardness (R-Scale)                             | 112                  |             | ASTM D785          |
| <b>Thermal</b>  | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Deflection Temperature Under Load (66 psi, Unannealed)  | • 400                | °F          | ASTM D648          |
|   | • 199                |             |                    |
| Deflection Temperature Under Load (264 psi, Unannealed) | • 375                | °F          | ASTM D648          |
|   | • 374                |             |                    |
| CLTE - Flow   | 1.6E-5               | in/in/°F    | ASTM D696          |
| <b>Electrical</b>                                       | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Volume Resistivity                                      | 1.0E+16              | ohms·cm     | ASTM D257          |
| Dielectric Strength (Method A (Short-Time))             | 450                  | V/mil       | ASTM D149          |
| <b>Flammability</b>                                     | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Flame Rating (0.06 in)                                  | HB                   |             | UL 94              |

**Processing Information**

| <b>Injection</b>       | <b>Nominal Value</b> | <b>Unit</b> |
|------------------------|----------------------|-------------|
| Drying Temperature     | 250                  | °F          |
| Drying Time            | 4.0                  | hr          |
| Rear Temperature       | 450 to 525           | °F          |
| Middle Temperature     | 450 to 525           | °F          |
| Front Temperature      | 450 to 525           | °F          |
| Processing (Melt) Temp | 450 to 475           | °F          |
| Mold Temperature       | 150 to 180           | °F          |
| Back Pressure          | 50.0 to 100          | psi         |
| Screw Speed            | 30 to 60             | rpm         |

