

## HiFill® PEI/C GF10

Techmer Polymer Modifiers - *Polyetherimide*

### General

|                        |                                     |
|------------------------|-------------------------------------|
| Material Status        | • Commercial: Active                |
| Availability           | • North America                     |
| Filler / Reinforcement | • Glass Fiber, 10% Filler by Weight |
| Features               | • Copolymer                         |
| Appearance             | • Colors Available                  |
| Forms                  | • Pellets                           |
| Processing Method      | • Injection Molding                 |

### Properties <sup>1</sup>

|   | Nominal Value | Unit     | Test Method |
|---|---------------|----------|-------------|
| <b>Physical</b>   |               |          |             |
| Density / Specific Gravity                              | 1.35          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 6.0E-3        | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.24          | %        | ASTM D570   |
| <b>Mechanical</b>                                       |               |          |             |
| Tensile Strength (Break)                                | 16900         | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 6.0           | %        | ASTM D638   |
| Flexural Modulus  | 760000        | psi      | ASTM D790   |
| Flexural Strength                                       | 27600         | psi      | ASTM D790   |
| <b>Impact</b>   |               |          |             |
| Notched Izod Impact (73°F, 0.125 in)                    | 1.0           | ft-lb/in | ASTM D256   |
| Unnotched Izod Impact (0.125 in)                        | 24            | ft-lb/in | ASTM D4812  |
| <b>Hardness</b>   |               |          |             |
| Rockwell Hardness (R-Scale)                             | 121           |          | ASTM D785   |
| <b>Thermal</b>  |               |          |             |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 433           | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 430           | °F       | ASTM D648   |
| CLTE - Flow   | 3.0E-5        | in/in/°F | ASTM D696   |
| <b>Electrical</b>                                       |               |          |             |
| Volume Resistivity                                      | 1.0E+16       | ohms·cm  | ASTM D257   |
| Dielectric Strength (Method A (Short-Time))             | 500           | V/mil    | ASTM D149   |

### Processing Information

|                        | Nominal Value | Unit |
|------------------------|---------------|------|
| <b>Injection</b>       |               |      |
| Drying Temperature     | 285           | °F   |
| Drying Time            | 3.0           | hr   |
| Rear Temperature       | 675 to 735    | °F   |
| Middle Temperature     | 675 to 735    | °F   |
| Front Temperature      | 675 to 735    | °F   |
| Processing (Melt) Temp | 670 to 730    | °F   |
| Mold Temperature       | 275 to 325    | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 50 to 100     | rpm  |

