

**HiFill FR® PP GF40 CC FR-1**

 Techmer Polymer Modifiers - *Polypropylene*
**General Information**
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|                        |                                     |
|------------------------|-------------------------------------|
| Material Status        | • Commercial: Active                |
| Availability           | • North America                     |
| Filler / Reinforcement | • Glass Fiber, 40% Filler by Weight |
| Additive               | • Flame Retardant                   |
| Features               | • Flame Retardant                   |
| Appearance             | • Natural Color                     |
| 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          | 1.56                 |             | ASTM D792          |
| Molding Shrinkage - Flow (0.125 in) | 7.0E-3 to 8.0E-3     | in/in       | ASTM D955          |
| <b>Mechanical</b>                   | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Tensile Modulus                     | 950000               | psi         | ASTM D638          |
| Tensile Strength (Yield)            | 12400                | psi         | ASTM D638          |
| Tensile Strength (Break)            | 12000                | psi         | ASTM D638          |
| Tensile Elongation (Break)          | 2.5                  | %           | ASTM D638          |
| Flexural Modulus                    | 820000               | psi         | ASTM D790          |
| <b>Impact</b>                       | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Notched Izod Impact (0.125 in)      | 1.6                  | ft·lb/in    | ASTM D256          |
| <b>Flammability</b>                 | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Flame Rating (0.12 in)              | V-0                  |             | UL 94              |

**Processing Information**

| <b>Injection</b>       | <b>Nominal Value</b> | <b>Unit</b> |
|------------------------|----------------------|-------------|
| Drying Temperature     | 150                  | °F          |
| Drying Time            | 2.0 to 3.0           | hr          |
| Rear Temperature       | 430 to 470           | °F          |
| Middle Temperature     | 440 to 480           | °F          |
| Front Temperature      | 450 to 490           | °F          |
| Nozzle Temperature     | 455 to 495           | °F          |
| Processing (Melt) Temp | 435 to 495           | °F          |
| Mold Temperature       | 50 to 150            | °F          |
| Injection Rate         | Slow                 |             |
| Back Pressure          | 25.0 to 75.0         | psi         |
| Screw Speed            | Slow                 |             |

**Notes**
<sup>1</sup> Typical properties: these are not to be construed as specifications.
