

**HiFill FR® PP CO E FR**

 Techmer Polymer Modifiers - *Polypropylene Copolymer*
**General Information**
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|                   |                               |
|-------------------|-------------------------------|
| Material Status   | • Commercial: Active          |
| Availability      | • North America               |
| Features          | • Copolymer • Flame Retardant |
| Appearance        | • Colors Available            |
| Forms             | • Pellets                     |
| Processing Method | • Extrusion                   |

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

|   | Nominal Value | Unit     | Test Method |
|---|---------------|----------|-------------|
| <b>Physical</b>   |               |          |             |
| Density / Specific Gravity                              | 1.33          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 0.016         | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.020         | %        | ASTM D570   |
| <b>Mechanical</b>                                       |               |          |             |
| Tensile Strength  | 3000          | psi      | ASTM D638   |
| Tensile Elongation (Yield)                              | 100           | %        | ASTM D638   |
| Flexural Modulus  | 150000        | psi      | ASTM D790   |
| Flexural Strength (Yield)                               | 4500          | psi      | ASTM D790   |
| <b>Impact</b>   |               |          |             |
| Notched Izod Impact                                     | 2.0           | ft-lb/in | ASTM D256   |
| <b>Hardness</b>   |               |          |             |
| Rockwell Hardness (R-Scale)                             | 80            |          | ASTM D785   |
| <b>Thermal</b>  |               |          |             |
| Deflection Temperature Under Load (264 psi, Unannealed) | 135           | °F       | ASTM D648   |
| CLTE - Flow   | 3.6E-5        | in/in/°F | ASTM D696   |
| <b>Electrical</b>                                       |               |          |             |
| Surface Resistivity                                     | 1.0E+14       | ohms     | ASTM D257   |
| Volume Resistivity                                      | 1.0E+16       | ohms·cm  | ASTM D257   |
| Dielectric Strength (Method A (Short-Time))             | 500           | V/mil    | ASTM D149   |
| <b>Flammability</b>                                     |               |          |             |
| Flame Rating (0.06 in)                                  | V-0           |          | UL 94       |

**Processing Information**

|                        | Nominal Value | Unit |
|------------------------|---------------|------|
| <b>Injection</b>       |               |      |
| Drying Temperature     | 170           | °F   |
| Drying Time            | 2.0 to 3.0    | hr   |
| Rear Temperature       | 420 to 460    | °F   |
| Middle Temperature     | 420 to 460    | °F   |
| Front Temperature      | 420 to 460    | °F   |
| Processing (Melt) Temp | 390 to 440    | °F   |
| Mold Temperature       | 80 to 120     | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 30 to 60      | rpm  |

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