

## HiFill FR® PPE/HIPS FR BK

Techmer Polymer Modifiers - *Polyphenylene Ether*

### General Information

#### General

|                   |                      |
|-------------------|----------------------|
| Material Status   | • Commercial: Active |
| Availability      | • North America      |
| Additive          | • Flame Retardant    |
| Features          | • Flame Retardant    |
| Appearance        | • Black              |
| Processing Method | • Injection Molding  |

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

| Physical                                                | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.08          |          | ASTM D792   |
| Mechanical                                              | Nominal Value | Unit     | Test Method |
| Tensile Modulus                                         | 350000        | psi      | ASTM D638   |
| Tensile Strength (Yield)                                | 8900          | psi      | ASTM D638   |
| Tensile Strength (Break)                                | 7500          | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 15            | %        | ASTM D638   |
| Flexural Modulus                                        | 370000        | psi      | ASTM D790   |
| Flexural Strength                                       | 13000         | psi      | ASTM D790   |
| Impact                                                  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (0.125 in)                          | 4.0           | ft-lb/in | ASTM D256   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 225           | °F       | ASTM D648   |
| Flammability                                            | Nominal Value | Unit     | Test Method |
| Flame Rating (0.12 in)                                  | V-1           |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 230           | °F   |
| Drying Time            | 3.0 to 4.0    | hr   |
| Rear Temperature       | 500 to 540    | °F   |
| Middle Temperature     | 510 to 550    | °F   |
| Front Temperature      | 520 to 560    | °F   |
| Nozzle Temperature     | 530 to 570    | °F   |
| Processing (Melt) Temp | 510 to 570    | °F   |
| Mold Temperature       | 160 to 220    | °F   |
| Injection Rate         | Moderate      |      |
| Back Pressure          | 25.0 to 75.0  | psi  |
| Screw Speed            | Slow-Moderate |      |

### Notes

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

