

## HiFill® PPS/F GF/M65

Techmer Polymer Modifiers - Polyphenylene Sulfide

### General

|                        |                                       |
|------------------------|---------------------------------------|
| Material Status        | • Commercial: Active                  |
| Availability           | • North America                       |
| Filler / Reinforcement | • Glass\Mineral, 65% Filler by Weight |
| Appearance             | • Colors Available                    |
| Forms                  | • Pellets                             |
| Processing Method      | • Injection Molding                   |

### ASTM & ISO Properties <sup>1</sup>

| Physical  | Nominal Value | Unit     | Test Method |
|---|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.90          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 3.0E-3        | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.040         | %        | ASTM D570   |
| Mechanical  | Nominal Value | Unit     | Test Method |
| Tensile Strength (Break)                                | 18000         | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 0.50          | %        | ASTM D638   |
| Flexural Modulus  | 2.60E+6       | psi      | ASTM D790   |
| Flexural Strength                                       | 27300         | psi      | ASTM D790   |
| Impact  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (73°F, 0.125 in)                    | 1.3           | ft-lb/in | ASTM D256   |
| Hardness  | Nominal Value | Unit     | Test Method |
| Rockwell Hardness (R-Scale)                             | 100           |          | ASTM D785   |
| Thermal   | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 540           | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 520           | °F       | ASTM D648   |
| CLTE - Flow   | 1.1E-5        | in/in/°F | ASTM D696   |
| Electrical  | Nominal Value | Unit     | Test Method |
| Volume Resistivity                                      | 1.0E+15       | ohms·cm  | ASTM D257   |
| Dielectric Strength (Method A (Short-Time))             | 560           | V/mil    | ASTM D149   |
| Flammability  | Nominal Value | Unit     | Test Method |
| Flame Rating  | V-0           |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 325           | °F   |
| Drying Time            | 4.0           | hr   |
| Rear Temperature       | 550 to 580    | °F   |
| Middle Temperature     | 600 to 650    | °F   |
| Front Temperature      | 590 to 630    | °F   |
| Nozzle Temperature     | 600 to 630    | °F   |
| Processing (Melt) Temp | 615 to 640    | °F   |
| Mold Temperature       | 265 to 325    | °F   |

