

## HiFill FR® PA6/6 GF50 FR BK

Techmer Polymer Modifiers - Polyamide 66

### General

|                        |                                     |
|------------------------|-------------------------------------|
| Material Status        | • Commercial: Active                |
| Availability           | • North America                     |
| Filler / Reinforcement | • Glass Fiber, 50% Filler by Weight |
| Features               | • Flame Retardant                   |
| Appearance             | • Black                             |
| Forms                  | • Pellets                           |
| Processing Method      | • Injection Molding                 |

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

| Physical                                                | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.69          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 2.0E-3        | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.35          | %        | ASTM D570   |
| Mechanical                                              | Nominal Value | Unit     | Test Method |
| Tensile Strength (Break)                                | 29000         | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 2.0           | %        | ASTM D638   |
| Flexural Modulus                                        | 2.40E+6       | psi      | ASTM D790   |
| Flexural Strength                                       | 43000         | psi      | ASTM D790   |
| Impact                                                  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (73°F, 0.125 in)                    | 1.9           | ft·lb/in | ASTM D256   |
| Hardness                                                | Nominal Value | Unit     | Test Method |
| Rockwell Hardness (R-Scale)                             | 121           |          | ASTM D785   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 500           | °F       | ASTM D648   |
| CLTE - Flow                                             | 9.0E-6        | in/in/°F | ASTM D696   |
| Electrical                                              | Nominal Value | Unit     | Test Method |
| Volume Resistivity                                      | 1.0E+16       | ohms·cm  | ASTM D257   |
| Dielectric Strength (Method A (Short-Time))             | 50            | V/mil    | ASTM D149   |
| Flammability                                            | Nominal Value | Unit     | Test Method |
| Flame Rating (0.03 in)                                  | V-0           |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 180           | °F   |
| Drying Time            | > 6.0         | hr   |
| Rear Temperature       | 490 to 530    | °F   |
| Middle Temperature     | 490 to 530    | °F   |
| Front Temperature      | 490 to 530    | °F   |
| Processing (Melt) Temp | 480 to 520    | °F   |
| Mold Temperature       | 150 to 200    | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 30 to 60      | rpm  |

