

## HiFill FR® PA6/6,6 FR NAT

Techmer Polymer Modifiers - *Polyamide 66/6 Copolymer*

### General

|                   |   |
|-------------------|---|
| Material Status   | • Commercial: Active                    |
| Availability      | • North America                         |
| Features          | • Flame Retardant                       |
| Appearance        | • Colors Available      • Natural Color |
| Forms             | • Pellets                               |
| Processing Method | • Injection Molding                     |

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

| Physical  | Nominal Value | Unit     | Test Method |
|---|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.19          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 9.0E-3        | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.70          | %        | ASTM D570   |
| Mechanical  | Nominal Value | Unit     | Test Method |
| Tensile Strength (Break)                                | 9500          | psi      | ASTM D638   |
| Tensile Elongation (Yield)                              | 60            | %        | ASTM D638   |
| Flexural Modulus  | 210000        | psi      | ASTM D790   |
| Impact  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (73°F, 0.125 in)                    | 2.5           | ft·lb/in | ASTM D256   |
| Hardness  | Nominal Value | Unit     | Test Method |
| Rockwell Hardness (R-Scale)                             | 112           |          | ASTM D785   |
| Thermal   | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 199           | °F       | ASTM D648   |
| CLTE - Flow   | 3.3E-5        | in/in/°F | ASTM D696   |
| Electrical  | Nominal Value | Unit     | Test Method |
| Surface Resistivity                                     | 1.0E+12       | ohms     | ASTM D257   |
| Volume Resistivity                                      | 1.0E+15       | ohms·cm  | ASTM D257   |
| Dielectric Strength (Method A (Short-Time))             | 530           | 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  |

