

## HiFill® PA6/6,6 IM3 BK

Techmer Polymer Modifiers - *Polyamide 66/6 Copolymer*

### General Information

| General           |                      |                          |             |
|-------------------|----------------------|--------------------------|-------------|
| Material Status   | • Commercial: Active |                          |             |
| Availability      | • North America      |                          |             |
| Additive          | • Heat Stabilizer    | • Impact Modifier        | • Lubricant |
| Features          | • Copolymer          | • High Impact Resistance |             |
|                   | • Heat Stabilized    | • Lubricated             |             |
| Appearance        | • Colors Available   |                          |             |
| Forms             | • Pellets            |                          |             |
| Processing Method | • Injection Molding  |                          |             |

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

| Physical                                                | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.09          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 0.016         | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 1.8           | %        | ASTM D570   |
| Mechanical                                              | Nominal Value | Unit     | Test Method |
| Tensile Strength (Break)                                | 8800          | psi      | ASTM D638   |
| Tensile Elongation (Yield)                              | 50            | %        | ASTM D638   |
| Flexural Modulus                                        | 385000        | psi      | ASTM D790   |
| Flexural Strength                                       | 12000         | psi      | ASTM D790   |
| Impact                                                  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact                                     |               |          | ASTM D256   |
| -40°F, 0.125 in                                         | 2.5           | ft·lb/in |             |
| 73°F, 0.125 in                                          | 12            | ft·lb/in |             |
| Unnotched Izod Impact (0.125 in)                        | No Break      |          | ASTM D4812  |
| Hardness                                                | Nominal Value | Unit     | Test Method |
| Rockwell Hardness (R-Scale)                             | 111           |          | ASTM D785   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 400           | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 140           | °F       | ASTM D648   |
| CLTE - Flow                                             | 4.4E-5        | in/in/°F | ASTM D696   |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 180           | °F   |
| Drying Time            | 2.0 to 4.0    | hr   |
| Suggested Max Moisture | 2.0 to 4.0    | %    |
| Rear Temperature       | 510 to 580    | °F   |
| Middle Temperature     | 510 to 580    | °F   |
| Front Temperature      | 510 to 580    | °F   |
| Processing (Melt) Temp | 500 to 540    | °F   |
| Mold Temperature       | 150 to 200    | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 30 to 60      | rpm  |

