

## HiFill® ABS GF50

Techmer Polymer Modifiers - *Acrylonitrile Butadiene Styrene*

### General Information

#### General

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

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

| Physical                                                | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.58          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 5.0E-4        | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.080         | %        | ASTM D570   |
| Mechanical                                              | Nominal Value | Unit     | Test Method |
| Tensile Strength (Break)                                | 16000         | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 2.0           | %        | ASTM D638   |
| Flexural Modulus                                        | 1.65E+6       | psi      | ASTM D790   |
| Flexural Strength                                       | 20000         | psi      | ASTM D790   |
| Impact                                                  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (73°F, 0.125 in)                    | 1.4           | ft-lb/in | ASTM D256   |
| Unnotched Izod Impact (0.125 in)                        | 6.0           | ft-lb/in | ASTM D4812  |
| Hardness                                                | Nominal Value | Unit     | Test Method |
| Rockwell Hardness (R-Scale)                             | 125           |          | ASTM D785   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 235           | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 225           | °F       | ASTM D648   |
| CLTE - Flow                                             | 7.0E-6        | in/in/°F | ASTM D696   |
| Flammability                                            | Nominal Value | Unit     | Test Method |
| Flame Rating                                            | HB            |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 170 to 190    | °F   |
| Drying Time            | 2.0 to 16     | hr   |
| Rear Temperature       | 420 to 450    | °F   |
| Middle Temperature     | 430 to 460    | °F   |
| Front Temperature      | 410 to 430    | °F   |
| Nozzle Temperature     | 390 to 430    | °F   |
| Processing (Melt) Temp | 450 to 500    | °F   |
| Mold Temperature       | 160 to 190    | °F   |

### Notes

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

