



## HiFill® PEEK GF40 A HF

Techmer Polymer Modifiers - *Polyetheretherketone*

### Action



### General Information

#### General

|                        |                      |
|------------------------|----------------------|
| Material Status        | • Commercial: Active |
| Availability           | • North America      |
| Filler / Reinforcement | • Glass Fiber        |
| Features               | • High Flow          |
| Appearance             | • Colors Available   |
| Processing Method      | • Injection Molding  |

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

| Physical                                                | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.61          |          | ASTM D792   |
| Molding Shrinkage - Flow (0.125 in)                     | 2.0E-3        | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.12          | %        | ASTM D570   |
| Mechanical                                              | Nominal Value | Unit     | Test Method |
| Tensile Strength (Break)                                | 30000         | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 2.0           | %        | ASTM D638   |
| Flexural Modulus                                        | 2.00E+6       | psi      | ASTM D790   |
| Flexural Strength                                       | 44000         | psi      | ASTM D790   |
| Impact                                                  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (73°F, 0.125 in)                    | 2.1           | ft-lb/in | ASTM D256   |
| Hardness                                                | Nominal Value | Unit     | Test Method |
| Rockwell Hardness (R-Scale)                             | 115           |          | ASTM D785   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 617           | °F       | ASTM D648   |
| Melting Temperature                                     | 648           | °F       |             |
| CLTE - Flow                                             | 1.2E-5        | in/in/°F | ASTM D696   |
| Electrical                                              | Nominal Value | Unit     | Test Method |
| Volume Resistivity                                      | 1.0E+16       | ohms·cm  | ASTM D257   |
| Flammability                                            | Nominal Value | Unit     | Test Method |
| Flame Rating (0.03 in)                                  | V-0           |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 300           | °F   |
| Drying Time            | 2.0 to 4.0    | hr   |
| Rear Temperature       | 680 to 730    | °F   |
| Middle Temperature     | 680 to 730    | °F   |
| Front Temperature      | 680 to 730    | °F   |
| Processing (Melt) Temp | 680 to 720    | °F   |
| Mold Temperature       | 350 to 425    | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 50 to 100     | rpm  |

### Notes

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