HiFill® PC GF40

Polycarbonate

Techmer Engineered Solutions

Message:

HiFill® PC GF40 is a polycarbonate (PC) product that contains 40% glass fiber reinforced materials. It can be processed by injection molding and is available in North America. The main characteristics are: flame retardant/rated flame.

| General Information | | | |
|-------------------------------------|---|----------|-------------|
| Filler / Reinforcement | Glass fiber reinforced material, 40% filler by weight | | |
| Appearance | Available colors | | |
| Forms | Particle | | |
| Processing Method | Injection molding | | |
| Physical | Nominal Value | Unit | Test Method |
| Specific Gravity | 1.54 | g/cm³ | ASTM D792 |
| Molding Shrinkage - Flow (3.18 mm) | 0.10 | % | ASTM D955 |
| Water Absorption (24 hr) | 0.070 | % | ASTM D570 |
| Hardness | Nominal Value | Unit | Test Method |
| Rockwell Hardness (R-Scale) | 120 | | ASTM D785 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength (Break) | 121 | MPa | ASTM D638 |
| Tensile Elongation (Break) | 3.0 | % | ASTM D638 |
| Flexural Modulus | 9650 | MPa | ASTM D790 |
| Flexural Strength | 165 | MPa | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (23°C, 3.18 mm) | 110 | J/m | ASTM D256 |
| Unnotched Izod Impact (3.18 mm) | 850 | J/m | ASTM D256 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load | | | ASTM D648 |
| 0.45 MPa, not annealed | 152 | °C | ASTM D648 |
| 1.8 MPa, not annealed | 149 | °C | ASTM D648 |
| CLTE - Flow | 2.0E-5 | cm/cm/°C | ASTM D696 |
| Flammability | Nominal Value | | Test Method |
| Flame Rating (1.50 mm) | V-2 | | UL 94 |
| Injection | Nominal Value | Unit | |
| Drying Temperature | 121 | °C | |
| Drying Time | 2.0 - 4.0 | hr | |
| Suggested Max Moisture | 0.10 | % | |
| Rear Temperature | 302 - 316 | °C | |
| Middle Temperature | 316 - 332 | °C | |
| Front Temperature | 310 - 327 | °C | |

| Nozzle Temperature | 310 - 327 | °C |
|------------------------|--------------|-----|
| Processing (Melt) Temp | 304 - 327 | °C |
| Mold Temperature | 71.1 - 87.8 | °C |
| Injection Rate | Moderate | |
| Back Pressure | 0.00 - 0.689 | MPa |
| Dack Freedaic | | |

Screw Speed: MediumRecommendations for Molding and Tool Conditions: Well vented moldMoisture Content, as received: Product is packaged at 0.2% or less.

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