# InStruc® PPGF45CC

**Americhem - *Polypropylene***

## General Information

| | | | |
|---|---|---|---|
| **Product Description** | | | |
| 45% GLASS FIBER REINFORCED, CHEMICALLY COUPLED, POLYPROPYLENE | | | |
| **General** | | | |
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America |
| Filler / Reinforcement | • Glass Fiber, 45% Filler by Weight | | |
| Features | • Chemically Coupled<br>• Filled | • Good Dimensional Stability<br>• High Stiffness | • High Strength |
| Uses | • Battery Cases<br>• Closures<br>• Connectors | • Consumer Applications<br>• Electrical/Electronic Applications<br>• Housings | • HVAC Applications<br>• Industrial Applications<br>• Industrial Parts |
| Appearance | • Black | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

## Properties [1]

| **Physical** | **Nominal Value** | **Unit** | **Test Method** |
|---|---|---|---|
| Density / Specific Gravity | 1.28 | | ASTM D792 |
| Molding Shrinkage - Flow (0.125 in) | 1.0E-3 to 3.0E-3 | in/in | ASTM D955 |
| Water Absorption (Equilibrium) | 0.020 | % | ASTM D570 |
| **Mechanical** | **Nominal Value** | **Unit** | **Test Method** |
| Tensile Strength | 14000 | psi | ASTM D638 |
| Flexural Modulus | 1.10E+6 | psi | ASTM D790 |
| Flexural Strength | 20000 | psi | ASTM D790 |
| **Impact** | **Nominal Value** | **Unit** | **Test Method** |
| Notched Izod Impact | 2.2 | ft·lb/in | ASTM D256 |
| Unnotched Izod Impact | 10 to 14 | ft·lb/in | ASTM D4812 |
| **Thermal** | **Nominal Value** | **Unit** | **Test Method** |
| Deflection Temperature Under Load (264 psi, Unannealed) | 300 | °F | ASTM D648 |
| **Electrical** | **Nominal Value** | **Unit** | **Test Method** |
| Surface Resistivity | > 1.0E+17 | ohms | ASTM D257 |

## Processing Information

| **Injection** | **Nominal Value** | **Unit** |
|---|---|---|
| Drying Temperature | 170 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Processing (Melt) Temp | 440 | °F |
| Mold Temperature | 100 | °F |
| Back Pressure | 50.0 to 100 | psi |
| Screw Speed | 40 to 70 | rpm |