

InStruc® PEEKGF10HF

Americhem - Polyetheretherketone

General Information
Product Description

10% GLASS FIBER REINFORCED, HIGH FLOW POLYETHERETHERKETONE

General

| | | | |
|------------------------|--------------------------------------|---------------------------|---------------------------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East | • Europe | • North America |
| | • Asia Pacific | • Latin America | |
| Filler / Reinforcement | • Glass Fiber, 10% Filler by Weight | | |
| Features | • Filled | • High Flow | • High Strength |
| | • Good Dimensional Stability | • High Stiffness | |
| Uses | • Aerospace Applications | • Housings | • Military/Defense Applications |
| | • Connectors | • Industrial Applications | • Oil/Gas Applications |
| | • Electrical/Electronic Applications | • Industrial Parts | • Outdoor Applications |
| | • Engineering Parts | • Metal Replacement | • Semiconductor Applications |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

Properties ¹

| | Nominal Value | Unit | Test Method |
|---|------------------|----------|-----------------|
| Physical | | | |
| Density / Specific Gravity | 1.37 | | ASTM D792 |
| Molding Shrinkage - Flow | 5.0E-3 to 6.0E-3 | in/in | ASTM D955 |
| Water Absorption (24 hr) | 0.40 | % | ASTM D570 |
| Mechanical | | | |
| Tensile Modulus | 900000 | psi | ASTM D638 |
| Tensile Strength | 15000 | psi | ASTM D638 |
| Tensile Elongation (Yield) | 2.0 to 3.0 | % | ASTM D638 |
| Flexural Modulus | 800000 | psi | ASTM D790 |
| Flexural Strength | 27000 | psi | ASTM D790 |
| Impact | | | |
| Notched Izod Impact (0.125 in) | 1.0 | ft·lb/in | ASTM D256 |
| Unnotched Izod Impact (0.125 in) | 8.0 | ft·lb/in | ASTM D955 |
| Thermal | | | |
| Deflection Temperature Under Load (264 psi, Unannealed) | 400 | °F | ASTM D648 |
| Electrical | | | |
| Surface Resistivity | 1.0E+17 | ohms | ASTM D257 |
| Flammability | | | |
| Flame Rating (0.06 in) | V-0 | | Internal Method |

Processing Information

| | Nominal Value | Unit |
|------------------------|---------------|------|
| Injection | | |
| Drying Temperature | 300 | °F |
| Drying Time | 4.0 | hr |
| Processing (Melt) Temp | 660 to 740 | °F |
| Mold Temperature | 350 to 400 | °F |
| Back Pressure | 50.0 to 100 | psi |
| Screw Speed | 40 to 70 | rpm |

