

InElec® PPCF30

Americhem - Polypropylene

General Information
Product Description

30% CARBON FIBER REINFORCED, ELECTRICALLY CONDUCTIVE POLYPROPYLENE

General

| | | | |
|------------------------|--------------------------------------|--------------------------------------|---------------------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East | • Europe | • North America |
| | • Asia Pacific | • Latin America | |
| Filler / Reinforcement | • Carbon Fiber, 30% Filler by Weight | | |
| Features | • Electrically Conductive | • Good Dimensional Stability | • Permanent Antistatic |
| | • ESD Protection | • High Stiffness | |
| | • Filled | • High Strength | |
| Uses | • Closures | • Electrical/Electronic Applications | • Industrial Applications |
| | • Connectors | • Housings | • Industrial Parts |
| | • Consumer Applications | • HVAC Applications | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

Properties ¹

| | Nominal Value | Unit | Test Method |
|---|------------------|----------|-------------|
| Physical | | | |
| Density / Specific Gravity | 1.06 | | ASTM D792 |
| Molding Shrinkage - Flow (0.125 in) | 1.0E-3 to 3.0E-3 | in/in | ASTM D955 |
| Mechanical | | | |
| Tensile Modulus | 1.50E+6 | psi | ASTM D638 |
| Tensile Strength | 8600 | psi | ASTM D638 |
| Tensile Elongation (Yield) | 0.50 to 1.0 | % | ASTM D638 |
| Flexural Modulus | 1.70E+6 | psi | ASTM D790 |
| Flexural Strength | 11500 | psi | ASTM D790 |
| Impact | | | |
| Notched Izod Impact | 1.1 | ft·lb/in | ASTM D256 |
| Thermal | | | |
| Deflection Temperature Under Load (264 psi, Unannealed) | 280 | °F | ASTM D648 |
| Electrical | | | |
| Surface Resistivity | 10 to 1.0E+4 | ohms | ASTM D257 |

Processing Information

| | Nominal Value | Unit |
|------------------------|---------------|------|
| Injection | | |
| Drying Temperature | 170 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Processing (Melt) Temp | 380 to 440 | °F |
| Mold Temperature | 100 | °F |
| Back Pressure | 50.0 to 100 | psi |
| Screw Speed | 40 to 70 | rpm |

