

InElec® PA6CF30

Americhem - Polyamide 6

General Information
Product Description

30% CARBON FIBER REINFORCED NYLON 6

General

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

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---|----------------------|-------------|--------------------|
| Density / Specific Gravity | 1.28 | | ASTM D792 |
| Molding Shrinkage - Flow | 2.0E-3 to 4.0E-3 | in/in | ASTM D955 |
| Water Absorption (24 hr) | 0.80 | % | ASTM D570 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength | 32000 | psi | ASTM D638 |
| Tensile Elongation (Yield) | 1.0 to 3.0 | % | ASTM D638 |
| Flexural Modulus | 2.40E+6 | psi | ASTM D790 |
| Flexural Strength | 46000 | psi | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (0.125 in) | 1.8 | ft·lb/in | ASTM D256 |
| Unnotched Izod Impact (0.125 in) | 13 | ft·lb/in | ASTM D4812 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 425 | °F | ASTM D648 |
| Electrical | Nominal Value | Unit | Test Method |
| Surface Resistivity | 1.0E+3 to 1.0E+5 | ohms | ASTM D2566 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|----------------------|-------------|
| Drying Temperature | 175 | °F |
| Drying Time | 4.0 | hr |
| Processing (Melt) Temp | 480 to 550 | °F |
| Mold Temperature | 200 | °F |
| Back Pressure | 50.0 to 100 | psi |
| Screw Speed | 40 to 70 | rpm |

