

**InElec® PEEKCNT5**
*Americhem - Polyetheretherketone*
**General Information**
**Product Description**

5% CARBON NANO-TUBE FILLED PEEK

**General**

|                        |   |   |   |
|------------------------|---|---|---|
| Material Status        | • Commercial: Active  |   |   |
| Availability           | • Africa & Middle East<br>• Asia Pacific  | • Europe<br>• Latin America   | • North America   |
| Filler / Reinforcement | • Carbon Nano, 5.0% Filler by Weight  |   |   |
| Features               | • Electrically Conductive   | • ESD Protection  | • Permanent Antistatic  |
| Uses                   | • Aerospace Applications<br>• Connectors<br>• Consumer Applications<br>• Electrical/Electronic Applications | • Engineering Parts<br>• Industrial Applications<br>• Industrial Parts<br>• Metal Replacement | • Military/Defense Applications<br>• Oil/Gas Applications<br>• Outdoor Applications<br>• Semiconductor Applications |
| Forms                  | • Pellets   |   |   |
| Processing Method      | • Injection Molding   |   |   |

**Properties <sup>1</sup>**

| <b>Physical</b>                | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
|--------------------------------|----------------------|-------------|--------------------|
| Density / Specific Gravity     | 1.32                 |             | ASTM D792          |
| <b>Mechanical</b>              | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Tensile Modulus                | 650000               | psi         | ASTM D638          |
| Tensile Strength               | 15000                | psi         | ASTM D638          |
| Tensile Elongation (Yield)     | 5.0 to 6.0           | %           | ASTM D638          |
| Flexural Modulus               | 700000               | psi         | ASTM D790          |
| Flexural Strength              | 30000                | psi         | ASTM D790          |
| <b>Impact</b>                  | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Notched Izod Impact (0.125 in) | 1.0                  | ft·lb/in    | ASTM D256          |
| <b>Electrical</b>              | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Surface Resistivity            | 1.0E+4 to 1.0E+6     | ohms        | ASTM D257          |

**Processing Information**

| <b>Injection</b>       | <b>Nominal Value</b> | <b>Unit</b> |
|------------------------|----------------------|-------------|
| Drying Temperature     | 300                  | °F          |
| Drying Time            | 2.0 to 4.0           | hr          |
| Processing (Melt) Temp | 660 to 750           | °F          |
| Mold Temperature       | 350 to 400           | °F          |
| Back Pressure          | 50.0 to 100          | psi         |
| Screw Speed            | 40 to 70             | rpm         |
| Vent Depth             | 1.5E-3 to 3.0E-3     | in          |

