

## InElec® PA66CF15GF15

Americhem - Polyamide 66

### General Information

#### Product Description

15% CARBON FIBER AND 15% GLASS FIBER REINFORCED NYLON 66

#### General

|                        |                                                                                               |                                                                                             |                                                         |
|------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------|
| Material Status        | • Commercial: Active                                                                          |                                                                                             |                                                         |
| Availability           | • Africa & Middle East<br>• Asia Pacific                                                      | • Europe<br>• Latin America                                                                 | • North America                                         |
| Filler / Reinforcement | • Carbon Fiber, 15% Filler by Weight                                                          | • Glass Fiber, 15% Filler by Weight                                                         |                                                         |
| Features               | • ESD Protection<br>• Filled                                                                  | • Good Dimensional Stability<br>• High Stiffness                                            | • High Strength<br>• Permanent Antistatic               |
| Uses                   | • Closures<br>• Connectors<br>• Consumer Applications<br>• Electrical/Electronic Applications | • Engineering Parts<br>• Household Goods<br>• Industrial Applications<br>• Industrial Parts | • Office Automation Equipment<br>• Outdoor Applications |
| Forms                  | • Pellets                                                                                     |                                                                                             |                                                         |
| Processing Method      | • Injection Molding                                                                           |                                                                                             |                                                         |

### Properties <sup>1</sup>

| Physical                                                | Nominal Value    | Unit     | Test Method |
|---------------------------------------------------------|------------------|----------|-------------|
| Density / Specific Gravity                              | 1.32             |          | ASTM D792   |
| Molding Shrinkage - Flow                                | 0.15 to 0.35     | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.80             | %        | ASTM D570   |
| Mechanical                                              | Nominal Value    | Unit     | Test Method |
| Tensile Modulus                                         | 1.80E+6          | psi      | ASTM D638   |
| Tensile Strength                                        | 34000            | psi      | ASTM D638   |
| Tensile Elongation (Yield)                              | 2.0 to 3.0       | %        | ASTM D638   |
| Flexural Modulus                                        | 1.70E+6          | psi      | ASTM D790   |
| Flexural Strength                                       | 42000            | psi      | ASTM D790   |
| Impact                                                  | Nominal Value    | Unit     | Test Method |
| Notched Izod Impact (0.125 in)                          | 1.6              | ft-lb/in | ASTM D256   |
| Unnotched Izod Impact (0.125 in)                        | 14 to 16         | ft-lb/in | ASTM D4812  |
| Thermal                                                 | Nominal Value    | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 490              | °F       | ASTM D648   |
| Electrical                                              | Nominal Value    | Unit     | Test Method |
| Surface Resistivity                                     | 1.0E+2 to 1.0E+3 | ohms     | ASTM D257   |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 175           | °F   |
| Drying Time            | 4.0           | hr   |
| Processing (Melt) Temp | 500 to 575    | °F   |
| Mold Temperature       | 200           | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 40 to 70      | rpm  |

