

InElec® PA66CF10GF20TF15FRHS

Americhem - Polyamide 66

General Information

Product Description

10% CARBON FIBER AND 20% GLASS FIBER REINFORCED, 15% PTFE LUBRICATED, HEAT STABILIZED, FLAME RETARDANT, NYLON 6/6

General

| | | | |
|------------------------|---|---|---|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Filler / Reinforcement | • Carbon Fiber, 10% Filler by Weight | • Glass Fiber, 20% Filler by Weight | |
| Additive | • Flame Retardant | • Heat Stabilizer | • PTFE Lubricant: 15% |
| Features | • Chemical Resistant • Filled • Flame Retardant • Good Dimensional Stability | • Good Mold Release • Halogenated • Heat Stabilized • High Stiffness | • High Strength • Lubricated • Permanent Antistatic • Wear Resistant |
| 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

| | Nominal Value | Unit | Test Method |
|---|------------------|----------|-------------|
| Physical | | | |
| Density / Specific Gravity | 1.68 | | ASTM D792 |
| Molding Shrinkage - Flow | 0.15 to 0.35 | in/in | ASTM D955 |
| Water Absorption (24 hr) | 0.70 | % | ASTM D570 |
| Mechanical | | | |
| Tensile Modulus | 2.20E+6 | psi | ASTM D638 |
| Tensile Strength | 17800 | psi | ASTM D638 |
| Tensile Elongation (Yield) | 1.7 | % | ASTM D638 |
| Flexural Modulus | 1.78E+6 | psi | ASTM D790 |
| Flexural Strength (Yield) | 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 to 12 | ft·lb/in | ASTM D4812 |
| Thermal | | | |
| Deflection Temperature Under Load (264 psi, Unannealed) | 475 | °F | ASTM D648 |
| Electrical | | | |
| Surface Resistivity | 1.0E+4 to 1.0E+7 | ohms | ASTM D257 |
| Flammability | | | |
| Flame Rating (0.06 in) | V-0 | | UL 94 |

Processing Information

| | Nominal Value | Unit |
|------------------------|---------------|------|
| Injection | | |
| 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 |

