

InStruc® PA66GF33IMMD

Americhem - Polyamide 66

General Information

Product Description

33% GLASS FIBER REINFORCED, IMPACT MODIFIED NYLON 6/6, FOR HEALTHCARE APPLICATIONS.

General

| | | | |
|------------------------|---|---|--|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East • Asia Pacific | • Europe • Latin America | • North America |
| Filler / Reinforcement | • Glass Fiber, 33% Filler by Weight | | |
| Additive | • Impact Modifier | | |
| Features | • Ethylene Oxide Sterilizable • Filled • Good Dimensional Stability | • High Impact Resistance • High Stiffness • High Strength | • Impact Modified • Low Temperature Toughness |
| Uses | • Closures • Electrical/Electronic Applications • Engineering Parts | • Housings • Industrial Parts • Medical/Healthcare Applications | • Surgical Instruments • Window & Door Components |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |

 Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---|------------------|----------|-------------|
| Density / Specific Gravity | 1.32 | | ASTM D792 |
| Molding Shrinkage - Flow | 4.0E-3 to 6.0E-3 | in/in | ASTM D955 |
| Water Absorption (24 hr) | 0.70 | % | ASTM D570 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Modulus | 1.10E+6 | psi | ASTM D638 |
| Tensile Strength | 20000 | psi | ASTM D638 |
| Tensile Elongation (Yield) | 4.0 to 5.0 | % | ASTM D638 |
| Flexural Modulus | 1.00E+6 | psi | ASTM D790 |
| Flexural Strength | 28000 | psi | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (0.125 in) | 5.7 | ft·lb/in | ASTM D256 |
| Unnotched Izod Impact (0.125 in) | 18 | ft·lb/in | ASTM D4812 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 480 | °F | ASTM D648 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 175 | °F |
| Drying Time | 2.0 to 4.0 | hr |
| Processing (Melt) Temp | 545 to 575 | °F |
| Mold Temperature | 150 to 200 | °F |
| Back Pressure | 50.0 to 100 | psi |
| Screw Speed | 40 to 70 | rpm |

