

## InStruc® PA6GF13IM2

Americhem - Polyamide 6

### General Information

| Product Description                                 |                                                                                                            |                                                                                             |                                                                                       |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 13% GLASS FIBER REINFORCED, IMPACT MODIFIED NYLON 6 |                                                                                                            |                                                                                             |                                                                                       |
| General                                             |                                                                                                            |                                                                                             |                                                                                       |
| Material Status                                     | • Commercial: Active                                                                                       |                                                                                             |                                                                                       |
| Availability                                        | • Africa & Middle East<br>• Asia Pacific                                                                   | • Europe<br>• Latin America                                                                 | • North America                                                                       |
| Filler / Reinforcement                              | • Glass Fiber, 13% Filler by Weight                                                                        |                                                                                             |                                                                                       |
| Additive                                            | • Impact Modifier                                                                                          |                                                                                             |                                                                                       |
| Features                                            | • Filled<br>• Good Dimensional Stability<br>• High Impact Resistance                                       | • High Stiffness<br>• High Strength<br>• Impact Modified                                    | • Low Temperature Toughness                                                           |
| Uses                                                | • Automotive Applications<br>• Closures<br>• Consumer Applications<br>• Electrical/Electronic Applications | • Engineering Parts<br>• Household Goods<br>• Industrial Applications<br>• Industrial Parts | • Office Automation Equipment<br>• Outdoor Applications<br>• Window & Door Components |
| Forms                                               | • Pellets                                                                                                  |                                                                                             |                                                                                       |
| Processing Method                                   | • Injection Molding                                                                                        |                                                                                             |                                                                                       |

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

| Physical                                                | Nominal Value    | Unit     | Test Method |
|---------------------------------------------------------|------------------|----------|-------------|
| Density / Specific Gravity                              | 1.18             |          | ASTM D792   |
| Molding Shrinkage - Flow                                | 5.0E-3 to 7.0E-3 | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.90             | %        | ASTM D570   |
| Mechanical                                              | Nominal Value    | Unit     | Test Method |
| Tensile Modulus                                         | 650000           | psi      | ASTM D638   |
| Tensile Strength                                        | 14000            | psi      | ASTM D638   |
| Tensile Elongation (Yield)                              | 4.0 to 5.0       | %        | ASTM D638   |
| Flexural Modulus                                        | 600000           | psi      | ASTM D790   |
| Flexural Strength                                       | 19000            | psi      | ASTM D790   |
| Impact                                                  | Nominal Value    | Unit     | Test Method |
| Notched Izod Impact (0.125 in)                          | 3.0              | ft-lb/in | ASTM D256   |
| Unnotched Izod Impact (0.125 in)                        | 15 to 17         | ft-lb/in | ASTM D4812  |
| Thermal                                                 | Nominal Value    | Unit     | Test Method |
| Deflection Temperature Under Load (264 psi, Unannealed) | 375              | °F       | ASTM D648   |
| Electrical                                              | Nominal Value    | Unit     | Test Method |
| Surface Resistivity                                     | 1.0E+17          | ohms     | ASTM D257   |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 175           | °F   |
| Drying Time            | 4.0           | hr   |
| Processing (Melt) Temp | 520           | °F   |
| Mold Temperature       | 200           | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 40 to 70      | rpm  |

