

## InStruc® PA66GF33IM2HS

Americhem - Polyamide 66

### General Information

#### Product Description

33% GLASS FIBER REINFORCED, IMPACT MODIFIED, HEAT-STABILIZED, NYLON 6/6

#### General

|                        |                                                                                                            |                                                                                             |                                                                                       |
|------------------------|------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Material Status        | • Commercial: Active                                                                                       |                                                                                             |                                                                                       |
| Availability           | • Africa & Middle East<br>• Asia Pacific                                                                   | • Europe<br>• Latin America                                                                 | • North America                                                                       |
| Filler / Reinforcement | • Glass Fiber, 33% Filler by Weight                                                                        |                                                                                             |                                                                                       |
| Additive               | • Heat Stabilizer                                                                                          | • Impact Modifier                                                                           |                                                                                       |
| Features               | • Filled<br>• Good Dimensional Stability<br>• Heat Stabilized                                              | • High Impact Resistance<br>• High Stiffness<br>• High Strength                             | • Impact Modified<br>• 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                              | 1.38             |          | ASTM D792   |
| Molding Shrinkage - Flow                                | 2.0E-3 to 4.0E-3 | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.90             | %        | ASTM D570   |
| Mechanical                                              | Nominal Value    | Unit     | Test Method |
| Tensile Modulus                                         | 1.40E+6          | psi      | ASTM D638   |
| Tensile Strength                                        | 18500            | psi      | ASTM D638   |
| Tensile Elongation (Yield)                              | 3.0 to 6.0       | %        | ASTM D638   |
| Flexural Modulus                                        | 1.25E+6          | psi      | ASTM D790   |
| Flexural Strength (Break)                               | 26000            | psi      | ASTM D790   |
| Impact                                                  | Nominal Value    | Unit     | Test Method |
| Notched Izod Impact (0.125 in)                          | 2.5              | 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) | 490              | °F       | ASTM D648   |
| Electrical                                              | Nominal Value    | Unit     | Test Method |
| Surface Resistivity                                     | > 1.0E+17        | ohms     | ASTM D257   |
| Flammability                                            | Nominal Value    | Unit     | Test Method |
| Flame Rating                                            |                  |          | UL 94       |
| 0.06 in                                                 | HB               |          |             |
| 0.13 in                                                 | HB               |          |             |

### 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  |

