

## InLube® PA6CF30TF13SI2

Americhem - Polyamide 6

### General Information

#### Product Description

30% CARBON FIBER REINFORCED 13% PTFE 2% SILICONE LUBRICATED NYLON 6

#### General

|                        |                                                                                                      |                                                                                                       |                                                      |
|------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| Material Status        | • Commercial: Active                                                                                 |                                                                                                       |                                                      |
| Availability           | • Africa & Middle East<br>• Asia Pacific                                                             | • Europe<br>• Latin America                                                                           | • North America                                      |
| Filler / Reinforcement | • Carbon Fiber, 30% Filler by Weight                                                                 |                                                                                                       |                                                      |
| Additive               | • Heat Stabilizer                                                                                    | • PTFE Lubricant: 13%                                                                                 | • Silicone Lubricant: 2%                             |
| Features               | • Chemical Resistant<br>• Filled<br>• Good Dimensional Stability<br>• Good Mold Release              | • Heat Stabilized<br>• High Stiffness<br>• High Strength<br>• Low Friction                            | • Lubricated<br>• Wear Resistant                     |
| Uses                   | • Closures<br>• Consumer Applications<br>• Electrical/Electronic Applications<br>• Engineering Parts | • Household Goods<br>• Industrial Applications<br>• Industrial Parts<br>• Office Automation Equipment | • 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                              | 1.36             |          | ASTM D792   |
| Molding Shrinkage - Flow                                | 2.0E-3 to 4.0E-3 | in/in    | ASTM D955   |
| Water Absorption (24 hr)                                | 0.50             | %        | ASTM D570   |
| Mechanical                                              | Nominal Value    | Unit     | Test Method |
| Tensile Strength                                        | 26500            | psi      | ASTM D638   |
| Tensile Elongation (Yield)                              | 1.0 to 2.0       | %        | ASTM D638   |
| Flexural Modulus                                        | 2.00E+6          | psi      | ASTM D790   |
| Flexural Strength                                       | 45000            | psi      | ASTM D790   |
| Impact                                                  | Nominal Value    | Unit     | Test Method |
| Notched Izod Impact (0.125 in)                          | 2.1              | 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) | 425              | °F       | ASTM D648   |
| Electrical                                              | Nominal Value    | Unit     | Test Method |
| Surface Resistivity                                     | 1.0E+3 to 1.0E+5 | ohms     | ASTM D257   |
| Flammability                                            | Nominal Value    | Unit     | Test Method |
| Flame Rating (0.06 in)                                  | HB               |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 175           | °F   |
| Drying Time            | 4.0           | hr   |
| Processing (Melt) Temp | 480 to 550    | °F   |
| Mold Temperature       | 200           | °F   |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 40 to 70      | rpm  |

