

**Integra™ PA6-6000 GA6.6 HS BK-4000**

PolySource, LLC - Polyamide 6

**General Information**
**Product Description**

Nylon 6, 33% Glass Fiber Reinforced, Heat Stabilized, Black

**General**

|                        |                                     |
|------------------------|-------------------------------------|
| Material Status        | • Commercial: Active                |
| Availability           | • North America                     |
| Filler / Reinforcement | • Glass Fiber, 33% Filler by Weight |
| Additive               | • Heat Stabilizer                   |
| Features               | • Heat Stabilized                   |
| Appearance             | • Black                             |
| Processing Method      | • Injection Molding                 |

**Properties <sup>1</sup>**

| <b>Physical</b>   | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
|---|----------------------|-------------|--------------------|
| Density / Specific Gravity                              | 1.40                 |             | ASTM D792          |
| Molding Shrinkage - Flow                                | 4.0E-3 to 6.0E-3     | in/in       | ASTM D955          |
| Molding Shrinkage - Across Flow                         | 6.0E-3 to 8.0E-3     | in/in       | ASTM D955          |
| Moisture Content  | < 0.20               | %           | ASTM D789          |
| <b>Mechanical</b>                                       | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Tensile Modulus   | 1.55E+6              | psi         | ASTM D638          |
| Tensile Strength (Break)                                | 26500                | psi         | ASTM D638          |
| Tensile Elongation (Break)                              | 2.0 to 4.0           | %           | ASTM D638          |
| <b>Impact</b>   | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Notched Izod Impact (73°F)                              | 2.0                  | ft-lb/in    | ASTM D256          |
| <b>Thermal</b>  | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 492                  | °F          | ASTM D648          |
| Deflection Temperature Under Load (264 psi, Unannealed) | 488                  | °F          | ASTM D648          |
| Peak Melting Temperature                                | 428                  | °F          | ASTM D3418         |
| <b>Flammability</b>                                     | <b>Nominal Value</b> | <b>Unit</b> | <b>Test Method</b> |
| Flame Rating (0.06 in)                                  | HB                   |             | UL 94              |

**Processing Information**

| <b>Injection</b>       | <b>Nominal Value</b> | <b>Unit</b> |
|------------------------|----------------------|-------------|
| Drying Temperature     | 180                  | °F          |
| Drying Time            | 2.0 to 4.0           | hr          |
| Suggested Max Moisture | 0.080 to 0.15        | %           |
| Rear Temperature       | 480 to 540           | °F          |
| Middle Temperature     | 500 to 560           | °F          |
| Front Temperature      | 500 to 560           | °F          |
| Nozzle Temperature     | 520 to 560           | °F          |
| Processing (Melt) Temp | 500 to 560           | °F          |
| Mold Temperature       | 80 to 180            | °F          |
| Back Pressure          | 50.0                 | psi         |

