

## AuroraGuard™ 6G30IM

Aurora Material Solutions, LLC - Polyamide 6

### General Information

#### Product Description

30% Glass Fiber Reinforced, Heat Stabilized Nylon

Formerly known as EnLon 6G30IM

#### General

|                        |                                     |                    |                 |
|------------------------|-------------------------------------|--------------------|-----------------|
| Material Status        | • Commercial: Active                |                    |                 |
| Availability           | • Africa & Middle East              | • Europe           | • North America |
|                        | • Asia Pacific                      | • Latin America    |                 |
| Filler / Reinforcement | • Glass Fiber, 30% Filler by Weight |                    |                 |
| Additive               | • Heat Stabilizer                   |                    |                 |
| Features               | • Heat Stabilized                   |                    |                 |
| Uses                   | • Automotive Applications           |                    |                 |
| Appearance             | • Black                             | • Colors Available | • Natural Color |
| Processing Method      | • Injection Molding                 |                    |                 |

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

| Physical                                                | Nominal Value    | Unit     | Test Method |
|---------------------------------------------------------|------------------|----------|-------------|
| Density / Specific Gravity                              | 1.36             |          | ASTM D792   |
| Molding Shrinkage - Flow (0.126 in)                     | 3.0E-3 to 7.0E-3 | in/in    | ASTM D955   |
| Water Absorption (24 hr, 73°F, 50RH)                    | 2.1              | %        | ASTM D570   |
| Water Absorption (Saturation, 73°F)                     | 6.6              | %        | ASTM D570   |
| Mechanical                                              | Nominal Value    | Unit     | Test Method |
| Tensile Modulus                                         | 1.31E+6          | psi      | ASTM D638   |
| Tensile Strength (Yield)                                | 26100            | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 4.0              | %        | ASTM D638   |
| Flexural Modulus                                        | 1.23E+6          | psi      | ASTM D790   |
| Flexural Strength                                       | 36300            | psi      | ASTM D790   |
| Impact                                                  | Nominal Value    | Unit     | Test Method |
| Notched Izod Impact (73°F)                              | 2.2              | ft·lb/in | ASTM D256   |
| Thermal                                                 | Nominal Value    | Unit     | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 423              | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 401              | °F       | ASTM D648   |
| Flammability                                            | Nominal Value    | Unit     | Test Method |
| Flame Rating (0.12 in)                                  | HB               |          | UL 94       |

### Processing Information

| Injection              | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature     | 165           | °F   |
| Drying Time            | 3.0 to 4.0    | hr   |
| Suggested Max Moisture | 0.020         | %    |
| Rear Temperature       | 428 to 500    | °F   |
| Middle Temperature     | 446 to 509    | °F   |
| Front Temperature      | 482 to 518    | °F   |
| Mold Temperature       | 131 to 203    | °F   |
| Back Pressure          | 50.8 to 102   | psi  |
| Screw Speed            | 60 to 90      | rpm  |

