

## AuroraGuard™ 1614GP

Aurora Material Solutions, LLC - Polycarbonate

### General Information

#### Product Description

General Purpose Molding Grade Polycarbonate

Formerly known as EnPure 1614GP

#### General

|                   |                                          |                             |                     |
|-------------------|------------------------------------------|-----------------------------|---------------------|
| Material Status   | • Commercial: Active                     |                             |                     |
| Availability      | • Africa & Middle East<br>• Asia Pacific | • Europe<br>• Latin America | • North America     |
| Features          | • General Purpose                        |                             |                     |
| Uses              | • Automotive Applications                | • Business Equipment        | • Thin-walled Parts |
| Appearance        | • Black                                  | • Colors Available          | • Natural Color     |
| Processing Method | • Injection Molding                      | • Profile Extrusion         |                     |

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

| Physical                                                | Nominal Value | Unit     | Test Method |
|---------------------------------------------------------|---------------|----------|-------------|
| Density / Specific Gravity                              | 1.20          |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (300°C/1.2 kg)                | 16            | g/10 min | ASTM D1238  |
| Molding Shrinkage - Flow (0.126 in)                     | 6.0E-3        | in/in    | ASTM D955   |
| Mechanical                                              | Nominal Value | Unit     | Test Method |
| Tensile Strength (Yield)                                | 9000          | psi      | ASTM D638   |
| Tensile Elongation (Break)                              | 120           | %        | ASTM D638   |
| Flexural Modulus                                        | 330000        | psi      | ASTM D790   |
| Flexural Strength                                       | 12000         | psi      | ASTM D790   |
| Impact                                                  | Nominal Value | Unit     | Test Method |
| Notched Izod Impact (73°F)                              | 14            | ft·lb/in | ASTM D256   |
| Thermal                                                 | Nominal Value | Unit     | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 270           | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 260           | °F       | ASTM D648   |
| Flammability                                            | Nominal Value | Unit     | Test Method |
| Flame Rating (0.13 in)                                  | V-2           |          | UL 94       |

### Processing Information

| Injection              | Nominal Value    | Unit |
|------------------------|------------------|------|
| Drying Temperature     | 220 to 250       | °F   |
| Drying Time            | 4.0              | hr   |
| Suggested Max Moisture | 0.020            | %    |
| Suggested Shot Size    | 40 to 75         | %    |
| Rear Temperature       | 520 to 560       | °F   |
| Middle Temperature     | 540 to 580       | °F   |
| Front Temperature      | 550 to 600       | °F   |
| Nozzle Temperature     | 550 to 590       | °F   |
| Processing (Melt) Temp | 560 to 600       | °F   |
| Mold Temperature       | 160 to 210       | °F   |
| Back Pressure          | 50.0 to 100      | psi  |
| Screw Speed            | 30 to 70         | rpm  |
| Vent Depth             | 1.5E-3 to 3.0E-3 | in   |

#### Injection Notes

Maximum Drying Time 7 hrs

