

**AuroraGuard™ ENV15-NC310**

Aurora Material Solutions, LLC - Polycarbonate + ABS

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

Injection Molding Grade, Good Low Temperature Impact, RoHS Compliant  
 NC310 = To Be Assigned 5 Digit Number Indicating Natural, Black, or Custom Color.  
 The ENV15 Series Products Are Available With Mold Release and/or UV Stabilizer.  
 Formerly known as ENVIROLOY® ENV15-NC310

**General**

|                   |   |
|-------------------|---|
| Material Status   | • Commercial: Active  |
| Availability      | • Africa & Middle East • Europe • North America<br>• Asia Pacific • Latin America     |
| Features          | • Low Temperature Impact Resistance   |
| Uses              | • Automotive Interior Parts • Electronic Displays • Recreational Vehicle Applications |
| RoHS Compliance   | • RoHS Compliant  |
| Appearance        | • Black • Colors Available • Natural Color  |
| Forms             | • Pellets   |
| Processing Method | • Injection Molding   |

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

|   | Nominal Value    | Unit     | Test Method |
|---|------------------|----------|-------------|
| <b>Physical</b>   |                  |          |             |
| Density / Specific Gravity                              | 1.13             |          | ASTM D792   |
| Melt Mass-Flow Rate (MFR) (260°C/5.0 kg)                | 12               | g/10 min | ASTM D1238  |
| Molding Shrinkage - Flow                                | 6.0E-3 to 8.0E-3 | in/in    | ASTM D955   |
| <b>Mechanical</b>                                       |                  |          |             |
| Tensile Strength (Yield)                                | 7600             | psi      | ASTM D638   |
| Flexural Modulus  | 342000           | psi      | ASTM D790   |
| Flexural Strength                                       | 13100            | psi      | ASTM D790   |
| <b>Impact</b>   |                  |          |             |
| Notched Izod Impact                                     |                  |          | ASTM D256   |
| -22°F   | 6.8              | ft·lb/in |             |
| 73°F  | 11               | ft·lb/in |             |
| <b>Thermal</b>  |                  |          |             |
| Deflection Temperature Under Load (66 psi, Unannealed)  | 250              | °F       | ASTM D648   |
| Deflection Temperature Under Load (264 psi, Unannealed) | 210              | °F       | ASTM D648   |
| <b>Flammability</b>                                     |                  |          |             |
| Burning Rate  | < 3.5            | in/min   | FMVSS 302   |

**Processing Information**

|                        | Nominal Value | Unit |
|------------------------|---------------|------|
| <b>Injection</b>       |               |      |
| Drying Temperature     | 180           | °F   |
| Drying Time            | 3.0 to 4.0    | hr   |
| Suggested Max Moisture | 0.050         | %    |
| Rear Temperature       | 480 to 510    | °F   |
| Middle Temperature     | 500 to 520    | °F   |
| Front Temperature      | 510 to 530    | °F   |
| Nozzle Temperature     | 520 to 540    | °F   |
| Mold Temperature       | 150 to 190    | °F   |
| Injection Rate         | Moderate-Fast |      |
| Back Pressure          | 50.0 to 100   | psi  |
| Screw Speed            | 40 to 70      | rpm  |

