

AuroraGuard™ ENV15-71638

Aurora Material Solutions, LLC - Polycarbonate + ABS

General Information
Product Description

AuroraGuard™ ENV15-71638 is a Hydrolytically Stable, Black, Polycarbonate/Acrylonitrile Butadiene Styrene (PC/ABS) Injection Molding Grade.

Formerly branded as ENVIROLOY®

General

| | | | |
|---------------------|-----------------------------|--------------------|--------------------------------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East | • Europe | • North America |
| | • Asia Pacific | • Latin America | |
| Features | • Hydrolytically Stable | | |
| Uses | • Automotive Interior Parts | • Electrical Parts | • Electrical/Electronic Applications |
| RoHS Compliance | • RoHS Compliant | | |
| Appearance | • Black | | |
| Forms | • Pellets | | |
| Processing Method | • Injection Molding | | |
| Resin ID (ISO 1043) | • PC/ABS | | |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---|------------------|----------|-------------------------|
| Density / Specific Gravity | 1.14 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (260°C/5.0 kg) | 22 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow | 5.0E-3 to 7.0E-3 | in/in | ASTM D955 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength (Yield) | 7850 | psi | ASTM D638 |
| Tensile Elongation (Break) | 110 | % | ASTM D638 |
| Flexural Modulus | 335000 | psi | ASTM D790 |
| Flexural Strength | 12500 | psi | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact (-22°F) | 7.6 | ft-lb/in | ASTM D256 |
| Gardner Impact ² | 440 | in-lb | ASTM D3029 |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed) | 262 | °F | ASTM D648 |
| Deflection Temperature Under Load (264 psi, Unannealed) | 225 | °F | ASTM D648 |
| Vicat Softening Temperature | 258 | °F | ASTM D1525 ³ |
| Flammability | Nominal Value | Unit | Test Method |
| Burning Rate (0.125 in, Self-Extinguishing) | 0.0 | in/min | ISO 3795 |
| Flame Rating (0.06 in) | HB | | UL 94 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|---------------|------|
| Drying Temperature | 185 to 225 | °F |
| Drying Time | 3.0 to 4.0 | hr |
| Suggested Max Moisture | 0.020 | % |
| Rear Temperature | 460 to 510 | °F |
| Middle Temperature | 480 to 550 | °F |
| Front Temperature | 480 to 550 | °F |
| Nozzle Temperature | 480 to 520 | °F |
| Mold Temperature | 150 to 190 | °F |



| | |
|----------------|-----------------|
| Injection Rate | Moderate-Fast |
| Back Pressure | 50.0 to 100 psi |
| Screw Speed | 40 to 70 rpm |

Notes

¹ Typical properties: these are not to be construed as specifications.

² No Failure Energy

³ Rate B (120°C/h), Loading 2 (50 N)

