

AuroraTec™ 1016U

Aurora Material Solutions, LLC - Polycarbonate + PBT

General Information
Product Description

Impact Modified, Molding Grade PC/PBT with UV Stabilizer

Formerly known as EnCounter 1016U

General

| | | | |
|-------------------|---------------------------|---------------------------|-----------------|
| Material Status | • Commercial: Active | | |
| Availability | • Africa & Middle East | • Europe | • North America |
| | • Asia Pacific | • Latin America | |
| Additive | • Impact Modifier | • UV Stabilizer | |
| Features | • Impact Modified | • UV Stabilized | |
| Uses | • Automotive Applications | • Lawn & Garden Equipment | |
| Appearance | • Black | • Colors Available | • Natural Color |
| Processing Method | • Injection Molding | • Profile Extrusion | |

Properties ¹

| Physical | Nominal Value | Unit | Test Method |
|---|----------------|----------|-------------|
| Density / Specific Gravity | 1.17 | | ASTM D792 |
| Melt Mass-Flow Rate (MFR) (265°C/5.0 kg) | 25 | g/10 min | ASTM D1238 |
| Molding Shrinkage - Flow (0.126 in) | 0.010 to 0.012 | in/in | ASTM D955 |
| Mechanical | Nominal Value | Unit | Test Method |
| Tensile Strength (Yield) | 9000 | psi | ASTM D638 |
| Tensile Elongation (Break) | 150 | % | ASTM D638 |
| Flexural Modulus | 350000 | psi | ASTM D790 |
| Flexural Strength | 12000 | psi | ASTM D790 |
| Impact | Nominal Value | Unit | Test Method |
| Notched Izod Impact | | | ASTM D256 |
| -40°F | 5.0 | ft·lb/in | |
| 73°F | 14 | ft·lb/in | |
| Thermal | Nominal Value | Unit | Test Method |
| Deflection Temperature Under Load (66 psi, Unannealed) | 240 | °F | ASTM D648 |
| Deflection Temperature Under Load (264 psi, Unannealed) | 220 | °F | ASTM D648 |

Processing Information

| Injection | Nominal Value | Unit |
|------------------------|------------------|------|
| Drying Temperature | 220 to 250 | °F |
| Drying Time | 3.0 to 6.0 | hr |
| Suggested Max Moisture | 0.020 | % |
| Rear Temperature | 480 to 540 | °F |
| Middle Temperature | 490 to 550 | °F |
| Front Temperature | 500 to 570 | °F |
| Nozzle Temperature | 525 to 575 | °F |
| Processing (Melt) Temp | 530 to 585 | °F |
| Mold Temperature | 150 to 200 | °F |
| Back Pressure | 50.0 to 100 | psi |
| Screw Speed | 40 to 75 | rpm |
| Vent Depth | 1.5E-3 to 3.0E-3 | in |

Injection Notes

Maximum Drying Time 7.0 hrs

