

Grade: Orion™ PCHC7100 (f1)

Molding Grade: FR Polycarbonate with 10% Glass

**Typical Material Properties**

|  |  |  |  |
| --- | --- | --- | --- |
| **Physical** | **Nominal Values** | **ASTM Test** | |
| Specific Gravity | 1.26 | D792 |  |
| Melt Flow (300°C/1.2 kg) | 12.0 g/10 min | D1238 |
|  |  |  |  |
| **Mechanical** |  |  |  |
| Tensile Modulus | 480,000 psi | D638 |  |
| Tensile Strength @ Yield | 9,400 psi | D638 |
| Flexural Modulus | 490,000 psi | D790 |
| Flexural Strength @ Yield | 14,500 psi | D790 |
|  |  |  |  |
| **Impact** |  |  |  |
| Notched Izod Impact (73°F, 0.125 in) | 2.0 ft-lb/in | D256 |  |
|  |  |  |  |
| **Thermal** |  |  |  |
| DTUL @ 264 psi – Unannealed (0.125 in) | 288°F | D648 |  |
|  |  |  |  |
| **Mold Shrinkage** |  |  |  |
| Linear Flow | .003 – .005 in/in | D955 |  |
| **UL Rating** | **(f1)** | **UL746C** |
| Flammability | V-0 @ 1.5mm, 5VA @ 2.4mm | UL 94 |  |
| RTI  Non-Chlorinated & Non-Brominated | 125°C, 115°C, 125°C | UL746B  UL746H |

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**Recommended Processing Guidelines**

|  |  |  |
| --- | --- | --- |
| **Nominal Values** | | |
| Drying Time and Temperature | 4.0 hrs at 250°F |  |
| Suggested Max Moisture | 0.020% |  |
| Rear Temperature | 520 – 550°F |  |
| Middle Temperature | 530 – 570°F |  |
| Front Temperature | 550 – 600°F |  |
| Nozzle Temperature | 550 – 600°F |  |
| Processing (Melt) Temperature | 550 – 610°F |  |
| Mold Temperature | 150 – 220°F |  |
| Back Pressure | 50 – 100 psi |  |
| Screw Speed | 40 – 75 RPM |  |

The conditions listed above are only guidelines. You may want to adjust conditions to meet your requirements.

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