

## **GRADE: ORION<sup>®</sup> PCHC7000 (F2)**

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                              | (f2)                     | UL746C    |  |
| Flammability                           | V-0 @ 1.5mm, 5VA @ 2.4mm | UL 94     |  |
| RTI                                    | 125°C, 115°C, 125°C      | UL746B    |  |
| Non-Chlorinated & Non-Brominated       |                          | 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.