



# Orion™ RESINS

Grade: PC/PET7901, PC/PET7901UV

Molding Grade PC/PET, w/ UV

## TYPICAL MATERIAL PROPERTIES

| Physical                             | Nominal Values    | ASTM Test |
|--------------------------------------|-------------------|-----------|
| Specific Gravity                     | 1.21              | D792      |
| Melt Flow (260°C/5.0 kg)             | 35 g/10 min       | D1238     |
| <b>Mechanical</b>                    |                   |           |
| Tensile Modulus                      | 315,000 psi       | D638      |
| Tensile Strength @ Yield             | 8,300 psi         | D638      |
| Flexural Modulus                     | 340,000 psi       | D790      |
| Flexural Strength @ Yield            | 12,500 psi        | D790      |
| <b>Impact</b>                        |                   |           |
| Notched Izod Impact (73°F, 0.125 in) | 11.0 ft-lb/in     | D256      |
| <b>Thermal</b>                       |                   |           |
| DTUL @ 264 psi-unannealed (0.250 in) | 245 °F            | D648      |
| DTUL @ 66 psi-unannealed (0.250 in)  | 260 °F            | D648      |
| <b>Mold Shrinkage</b>                |                   |           |
| Linear Flow                          | .006 - .009 in/in | D955      |

## RECOMMENDED PROCESSING GUIDELINES

|                               | Nominal Values   |
|-------------------------------|------------------|
| Drying Time and Temperature   | 4.0 hrs at 250°F |
| Suggested Max Moisture        | 0.020%           |
| Rear Temperature              | 470 – 520°F      |
| Middle Temperature            | 480 – 530°F      |
| Front Temperature             | 495 – 540°F      |
| Nozzle Temperature            | 490 – 525°F      |
| Processing (Melt) Temperature | 500 – 535°F      |
| Mold Temperature              | 150 – 190 °F     |
| Back Pressure                 | 50 – 100 psi     |
| Screw Speed                   | 40 – 75 RPM      |

# Navigating Custom Compounds