

# Orion™ RESINS

Grade: PCGF20, PCGF20R, PCGF20UV, PCGF20RUV  
Molding Grade PC 20% Glass, w/ Release, w/ UV, W/ UV & Release



## TYPICAL MATERIAL PROPERTIES

| Physical                              | Nominal Values    | ASTM Test |
|---------------------------------------|-------------------|-----------|
| Specific Gravity                      | 1.34              | D792      |
| Melt Flow (300°C/1.2 kg)              | 15 g/10 min       | D1238     |
| <b>Mechanical</b>                     |                   |           |
| Tensile Modulus                       | 745,000 psi       | D638      |
| Tensile Strength @ Yield              | 14,000 psi        | D638      |
| Flexural Modulus                      | 750,000 psi       | D790      |
| Flexural Strength @ Yield             | 17,500 psi        | D790      |
| <b>Impact</b>                         |                   |           |
| Notched Izod Impact (73 °F, 0.125 in) | 1.0 ft-lb/in      | D256      |
| <b>Thermal</b>                        |                   |           |
| DTUL @ 264 psi-unannealed (0.125 in)  | 285 °F            | D648      |
| <b>Mold Shrinkage</b>                 |                   |           |
| Linear Flow                           | .001 - .003 in/in | D955      |

The information provided above is based upon typical values, and are intended only as guides. Star Plastics, Inc/SDR Inc. assumes no obligation or liability for any advice furnished or for any results obtained with respect to this information. *No guarantees or warranties are expressed or implied.*

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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              | 550 – 600 °F     |
| Middle Temperature            | 575 – 625 °F     |
| Front Temperature             | 600 – 650 °F     |
| Nozzle Temperature            | 600 – 650 °F     |
| Processing (Melt) Temperature | 600 – 650 °F     |
| Mold Temperature              | 175 – 225 °F     |
| Back Pressure                 | 50 – 200 psi     |
| Screw Speed                   | 40 – 100 RPM     |

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

Rev0

Technical Data Sheet  
StarPlastics.com

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# Navigating Custom Compounds