

## Gd<sub>3</sub>Ga<sub>5</sub>O<sub>12</sub> – Gadolinium Gallium Garnet

### CRYSTAL GROWTH

|                             |             |
|-----------------------------|-------------|
| <b>Growth Method</b>        | Czochralski |
| <b>Max. Diameter (inch)</b> | Ø 3"        |
| <b>Growth Direction</b>     | [111]       |

### CRYSTALLOGRAPHIC PROPERTIES

|                              |            |
|------------------------------|------------|
| <b>Crystal Structure</b>     | cubic      |
| <b>Lattice Constant (nm)</b> | a = 1.2382 |

### PHYSICAL PROPERTIES

|  |             |
|--|-------------|
| <b>Color</b>   | pale yellow |
| <b>Density (g/cm<sup>3</sup>)</b>                        | 7.02        |
| <b>Melting Point (K)</b>                                 | 2003        |
| <b>Thermal Expansion (10<sup>-6</sup>K<sup>-1</sup>)</b> | 8.2         |
| <b>Dielectric Constant</b>                               | 30          |
| <b>Loss Tangent (@ 77K, 10GHz)</b>                       | 0.15        |
| <b>Hardness (Mohs)</b>                                   | 6.5         |

