

## Y<sub>3</sub>Al<sub>5</sub>O<sub>12</sub> – Yttrium Aluminium Garnet

### CRYSTAL GROWTH

<b>Growth Method</b>	Czochralski
<b>Growth Direction</b>	[111]
<b>Max. Diameter (inch)</b>	Ø3"

### CRYSTALLOGRAPHIC PROPERTIES

<b>Crystal Structure</b>	cubic
<b>Lattice Constant (nm)</b>	a = 1.2005 without twins

### PHYSICAL PROPERTIES

<b>Color</b>	colorless
<b>Density (g/cm<sup>3</sup>)</b>	4.55
<b>Melting Point (K)</b>	2223
<b>Thermal Expansion (10<sup>-6</sup>K<sup>-1</sup>)</b>	6.9
<b>Thermal conductivity (W m<sup>-1</sup>K<sup>-1</sup>)</b>	13
<b>Hardness (Mohs)</b>	8-8.5

