

## NdGaO<sub>3</sub> – Neodymium Gallat

### MATERIAL PROPERTIES

<b>Structure formula:</b>	NdGaO <sub>3</sub>		
<b>State:</b>	monocrystalline		
<b>Crystal structure:</b>	orthorhombic	a = 5.426 Å	b = 5.496 Å
		c = 7.707 Å	
	Perovskite cell	a,c = 3.863 Å	b = 3.854 Å
<b>Phase transition:</b>	No (RT to 1300°C)		
<b>Density:</b>	7.57 g/cm <sup>3</sup>		
<b>Melting point:</b>	1600°C		
<b>Coefficient of expansion:</b>	11 * 10 <sup>-6</sup> /°C		
<b>Phase transition:</b>	No (RT to 1300°C)		

### SUBSTRATE PROPERTIES

<b>Production method:</b>	Czochralski grown
<b>Orientation:</b>	(110)
<b>Orientation accuracy:</b>	± 0.5°
<b>Standard size:</b>	10mm x 10mm x thickness 1mm or 0.5mm
<b>Tolerance of length:</b>	± 0.10mm
<b>Tolerance of thickness:</b>	± 0.05mm
<b>Parallelness:</b>	± 0.02
<b>Polishing:</b>	standard: one side
<b>Flatness:</b>	± /4
<b>Roughness of surface:</b>	Rmax ± 3nm (average Ra=1nm)
<b>Scratches:</b>	None
<b>Surface quality:</b>	with light microscope without defects

