

NdGaO₃ – Neodymium Gallate

MATERIAL PROPERTIES

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

SUBSTRATE PROPERTIES

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

