

NEODYMIUM GALLATE

PHYSICAL PROPERTIES:

Chemical Formula: NdGaO₃

Density: 7.57 g/cc

Molecular Weight: 291.96

Crystal Structure: Distorted Perovskite

Crystal System (RT): Pbnm a = 5.426Å

Orthorhombic: b = 5.496Å

Crystal System (>1350 °C): R3m(?) Rhombohedral

Phase Transition: -1350 °C

Dielectric Constant: -20 to 25

Melting Point: 2100 °C

Color: Deep red purple to green purple

Thermal Expansion: -11 x 10⁻⁶/ °C

Twin Structure: Can be produced twin free or with only several twin boundaries parallel to (100) of pseudo-cubic cell

Surface Roughness: Within 10 Nanometers