

Neodymium Powder

Formula: Nd

Percentage Purity: 99.9%

Maximum Particle Size: 250µm

Weight: 100g

CAS Number: 7440-00-8

UOM Code: 017-720-07

SKU: 1000002151-group

Product Code: ND00-PD-000110

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	60
Crystal structure	Hexagonal close packed
Electronic structure	Xe 4f ⁷ 6s ²
Valences shown	3
Atomic weight(amu)	144.24
Thermal neutron absorption cross-section(Barns)	49
Photo-electric work function(eV)	3.2
Natural isotope distribution(Mass No./%)	148/ 5.7
Natural isotope distribution(Mass No./%)	145/ 8.3
Natural isotope distribution(Mass No./%)	142/ 27.2
Natural isotope distribution(Mass No./%)	143/ 12.2
Natural isotope distribution(Mass No./%)	150/ 5.6
Natural isotope distribution(Mass No./%)	146/ 17.2
Natural isotope distribution(Mass No./%)	144/ 23.8
Atomic radius - Goldschmidt(nm)	0.182
Ionisation potential(No./eV)	2/ 10.72
Ionisation potential(No./eV)	1/ 5.49

Mechanical Properties

Element	Value
Material condition	Polycrystalline

Element	Value
Poisson's ratio	0.31
Bulk modulus(GPa)	33.3
Tensile modulus(GPa)	37.9
Hardness - Vickers(kgf mm ²)	35
Tensile strength(MPa)	172
Yield strength(MPa)	165

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	64@20@20°C
Temperature coefficient(K ⁻¹)	0.00164@0-100°C

Physical Properties

Element	Value
Boiling point(C)	3068
Density(gcm ³)	7.004@20°C

Thermal Properties

Element	Value
Melting point(C)	1021
Latent heat of evaporation(J g ⁻¹)	2000
Latent heat of fusion(J g ⁻¹)	75
Specific heat(J K ⁻¹ kg ⁻¹)	205@25°C
Thermal conductivity(W m ⁻¹ K ⁻¹)	13@0-100°C
Coefficient of thermal expansion($\times 10^{-6}$ K ⁻¹)	6.7@0-100°C