

Cadmium Powder

Formula: Cd

Percentage Purity: 99.9%

Maximum Particle Size: 60µm

Weight: 500g

CAS Number: 7440-43-9

UOM Code: 074-845-75

SKU: 1000010605-group

Product Code: CD00-PD-000120

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	48
Crystal structure	Hexagonal close packed
Electronic structure	Kr 4d ¹⁰ 5s ²
Valences shown	2
Atomic weight(amu)	112.41
Thermal neutron absorption cross-section(Barns)	2450
Photo-electric work function(eV)	4
Natural isotope distribution(Mass No./%)	106/ 1.2
Natural isotope distribution(Mass No./%)	108/ 0.9
Natural isotope distribution(Mass No./%)	111/ 12.8
Natural isotope distribution(Mass No./%)	112/ 24.0
Natural isotope distribution(Mass No./%)	113/ 12.3
Natural isotope distribution(Mass No./%)	116/ 7.6
Natural isotope distribution(Mass No./%)	110/ 12.4
Natural isotope distribution(Mass No./%)	114/ 28.8
Atomic radius - Goldschmidt(nm)	0.152
Ionisation potential(No./eV)	2/ 16.9
Ionisation potential(No./eV)	3/ 37.5
Ionisation potential(No./eV)	1/ 8.99

Mechanical Properties

Element	Value
Hardness - Mohs	-
Hardness - Mohs	2
Material condition	Polycrystalline
Material condition	Cast
Poisson's ratio	0.3
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Bulk modulus(GPa)	51
Bulk modulus(GPa)	51
Tensile modulus(GPa)	62.6
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Tensile strength(MPa) -	
Tensile strength(MPa)	71

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	7.3@20@20°C
Superconductivity critical temperature(K)	0.517
Temperature coefficient(K^{-1})	0.0043@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)(mV)	0.91

Physical Properties

Element	Value
Boiling point(C)	765
Density(gcm^{-3})	8.64@20°C

Thermal Properties

Element	Value
Melting point(C)	321
Latent heat of evaporation(J g^{-1})	886
Latent heat of fusion(J g^{-1})	57
Specific heat($\text{J K}^{-1} \text{kg}^{-1}$)	232@25°C
Thermal conductivity($\text{W m}^{-1} \text{K}^{-1}$)	96.9@0-100°C
Coefficient of thermal expansion($\times 10^{-6} \text{K}^{-1}$)	31@0-100°C