Magnesium Powder

Formula: Mg
Percentage Purity: 99.8%
Maximum Particle Size: 250µm
Weight: 200g
Surface Finish: Ground
CAS Number: 7439-95-4
UOM Code: 042-166-87
SKU: 1000005770-group
Product Code: MG00-PD-000111

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	12
Crystal structure	Hexagonal close packed
Electronic structure	Ne $3s^2$
Valences shown	2
Atomic weight(amu)	24.305
Thermal neutron absorption cross-section(Barns)	0.064
Photo-electric work function(eV)	3.66
Natural isotope distribution(Mass No./%)	24/ 78.99
Natural isotope distribution(Mass No./%)	26/ 11.01
Natural isotope distribution(Mass No./%)	25/ 10.00
Atomic radius - Goldschmidt(nm)	0.16
Ionisation potential(No./eV)	2/ 15.03
Ionisation potential(No./eV)	6/ 187
Ionisation potential(No./eV)	4/ 109
Ionisation potential(No./eV)	5/ 141
Ionisation potential(No./eV)	1/ 7.65
Ionisation potential(No./eV)	3/ 80.1

Mechanical Properties

Element	Value

Material condition	Hard
Material condition	Soft
Poisson's ratio	0.291
Poisson's ratio	0.291
Bulk modulus(GPa)	35.6
Bulk modulus(GPa)	35.6
Tensile modulus(GPa)	44.7
Tensile modulus(GPa)	44.7
Hardness - Vickers(kgf mm?²)	35-45
Hardness - Vickers(kgf mm?²)	30-35
Tensile strength(MPa)	232
Tensile strength(MPa)	185
Yield strength(MPa)	69
Yield strength(MPa)	100

Electrical Properties

Element	Value
Electrical resistivity(µOhmcm)	4.2@20@20°C
Temperature coefficient(K?¹)	0.00425@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)(mV)	0.44

Physical Properties

Element	Value
Boiling point(C)	1090
Density(gcm?³)	1.74@20°C

Thermal Properties

Element	Value
Melting point(C)	649
Latent heat of evaporation(J g?¹)	5254
Latent heat of fusion(J g?¹)	362
Specific heat(J K?¹ kg?¹)	1020@25°C
Thermal conductivity(W m?¹ K?¹)	156@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	26@0-100°C