Manganese Powder

Manganese powder is a fine, reactive metal powder used in powder metallurgy, alloying, and high?strength steel and battery material development. **SKU:** 1000001540-group
Product Code: MN00-PD-000112

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	25
Crystal structure	Body centred cubic
Electronic structure	Ar 3d? 4s²
Valences shown	1, 2, 3, 4, 6, 7
Atomic weight(amu)	54.938
Thermal neutron absorption cross-section(Barns)	13.3
Photo-electric work function(eV)	3.8
Atomic radius - Goldschmidt(nm)	0.112
Ionisation potential(No./eV)	2/ 15.64
Ionisation potential(No./eV)	3/ 33.67
Ionisation potential(No./eV)	4/ 51.2
Ionisation potential(No./eV)	Jun-95
Ionisation potential(No./eV)	5/ 72.4
Ionisation potential(No./eV)	1/ 7.43

Mechanical Properties

Element	Value
Hardness - Mohs	5
Material condition	Polycrystalline
Poisson's ratio	0.24
Bulk modulus(GPa)	118
Tensile modulus(GPa)	191

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	160@20°C

Physical Properties

Element	Value
Boiling point(C)	1962
Density(gcm?³)	7.4@20°C

Thermal Properties

Element	Value
Melting point(C)	1244
Latent heat of evaporation(J g?¹)	4207
Latent heat of fusion(J g?¹)	267
Specific heat(J K?¹ kg?¹)	477@25°C
Thermal conductivity(W m?¹ K?¹)	7.81@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	23@0-100°C