

Manganese Sputtering Target

Formula: Mn

Percentage Purity: 99.95%

Thickness: 3mm

Diameter: 50mm

Production Method: Hot Pressed

CAS Number: 7439-96-5

UOM Code: 273-050-96

SKU: 1000115299-group

Product Code: MN00-ST-000100

Material Properties for Metals

Atomic Properties

| Element | Value |
|---|------------------------------------|
| Atomic number | 25 |
| Crystal structure | Body centred cubic |
| Electronic structure | Ar 3d ⁵ 4s ² |
| 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 |

| Element | Value |
|------------------------|--------------|
| Bulk modulus(GPa) | 118 |
| Tensile modulus(GPa) | 191 |

Electrical Properties

| Element | Value |
|---|--------------|
| Electrical resistivity(μOhmcm) | 160@20@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($\text{J K}^{-1} \text{kg}^{-1}$) | 477@25°C |
| Thermal conductivity($\text{W m}^{-1} \text{K}^{-1}$) | 7.81@0-100°C |
| Coefficient of thermal expansion($\times 10^{-6} \text{K}^{-1}$) | 23@0-100°C |