

Terbium Sputtering Target

Formula: Tb

Percentage Purity: 99%

Thickness: 1mm

Diameter: 75mm

CAS Number: 7440-27-9

UOM Code: 674-412-48

SKU: 1000207461-group

Product Code: TB00-ST-000100

Material Properties for Metals

Atomic Properties

| Element | Value |
|---|------------------------------------|
| Atomic number | 65 |
| Crystal structure | Hexagonal close packed |
| Electronic structure | Xe 4f ⁷ 6s ² |
| Valences shown | 3,4 |
| Atomic weight(amu) | 158.9254 |
| Thermal neutron absorption cross-section(Barns) | 30 |
| Photo-electric work function(eV) | 3 |
| Atomic radius - Goldschmidt(nm) | 0.177 |
| Ionisation potential(No./eV) | 2/ 11.52 |
| Ionisation potential(No./eV) | 1/ 5.85 |

Mechanical Properties

| Element | Value |
|--|-----------------|
| Material condition | Polycrystalline |
| Poisson's ratio | 0.265 |
| Bulk modulus(GPa) | 40.8 |
| Tensile modulus(GPa) | 57.5 |
| Hardness - Vickers(kgf mm ⁻²) | 60 |

Electrical Properties

| Element | Value |
|---------|-------|
|---------|-------|

Electrical resistivity(μOhmcm) 116@20@20°C

Physical Properties

| Element | Value |
|---------|-------|
|---------|-------|

Boiling point(C) 3123

Density(gcm^3) 8.272@20°C

Thermal Properties

| Element | Value |
|---------|-------|
|---------|-------|

Melting point(C) 1356

Latent heat of evaporation(J g^{-1}) 1840

Latent heat of fusion(J g^{-1}) 103

Specific heat($\text{J K}^{-1} \text{kg}^{-1}$) 183@25°C

Thermal conductivity($\text{W m}^{-1} \text{K}^{-1}$) 11.1@0-100°C

Coefficient of thermal expansion($\times 10^{-6} \text{K}^{-1}$) 7@0-100°C