

# Terbium Rod

**Formula:** Tb

**Percentage Purity:** 99%

**Diameter:** 2mm

**Length:** 20mm

**CAS Number:** 7440-27-9

**UOM Code:** 100-102-39

**SKU:** 1000014093-group

**Product Code:** TB00-RD-000102

## Material Properties for Metals

### Atomic Properties

Element	Value
Atomic number	65
Crystal structure	Hexagonal close packed
Electronic structure	Xe 4f <sup>7</sup> 6s <sup>2</sup>
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 <sup>-2</sup> )	60

### Electrical Properties

Element	Value
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Electrical resistivity(  $\mu\text{Ohmcm}$  ) 116@20@20°C

### Physical Properties

Element	Value
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Boiling point( C ) 3123

Density(  $\text{gcm}^3$  ) 8.272@20°C

### Thermal Properties

Element	Value
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Melting point( C ) 1356

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

Latent heat of fusion(  $\text{J g}^{-1}$  ) 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