

# Terbium Foil (Light Tight)

**Formula:** Tb

**Percentage Purity:** 93%

**Temper:** As Rolled

**Thickness:** 0.6mm

**Length 1:** 50mm

**Length 2:** 50mm

**UOM Code:** 436-560-65

**SKU:** 1000223941-group

**Product Code:** TB00-FL-000167

## 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       |
|---|-------------|
| Electrical resistivity( $\mu\text{Ohmcm}$ ) | 116@20@20°C |

## Physical Properties

| Element                   | Value      |
|---------------------------|------------|
| Boiling point( C )        | 3123       |
| Density( $\text{gcm}^3$ ) | 8.272@20°C |

## Thermal Properties

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