

Grade 4 Titanium Foil

Grade: Grade 4

Standard: ASTM B265

Formula: Ti

Percentage Purity: 98.5%

Temper: As Rolled

Thickness: 0.1mm

Length 1: 120mm

Length 2: 120mm

CAS Number: 7440-32-6

UOM Code: 296-173-39

SKU: 1000126235-group

Product Code: TI00-FL-000504

Material Properties for Metals

Atomic Properties

| Element | Value |
|---|------------------------------------|
| Atomic number | 22 |
| Crystal structure | Hexagonal close packed |
| Electronic structure | Ar 3d ² 4s ² |
| Valences shown | 2,3,4 |
| Atomic weight(amu) | 47.88 |
| Thermal neutron absorption cross-section(Barns) | 6.1 |
| Photo-electric work function(eV) | 4.1 |
| Natural isotope distribution(Mass No./%) | 50/ 5.3 |
| Natural isotope distribution(Mass No./%) | 49/ 5.5 |
| Natural isotope distribution(Mass No./%) | 46/ 8.0 |
| Natural isotope distribution(Mass No./%) | 48/ 73.7 |
| Natural isotope distribution(Mass No./%) | 47/ 7.5 |
| Atomic radius - Goldschmidt(nm) | 0.147 |
| Ionisation potential(No./eV) | 3/ 27.5 |
| Ionisation potential(No./eV) | 4/ 43.3 |
| Ionisation potential(No./eV) | 5/ 99.2 |
| Ionisation potential(No./eV) | 1/ 6.82 |
| Ionisation potential(No./eV) | 2/ 13.6 |

| Element | Value |
|--------------------------------|--------|
| Ionisation potential(No./eV) | 6/ 119 |

Mechanical Properties

| Element | Value |
|---|-----------------|
| Material condition | Polycrystalline |
| Material condition | Annealed |
| Poisson's ratio | 0.361 |
| Poisson's ratio | 0.361 |
| Poisson's ratio | - |
| Bulk modulus(GPa) | 108.4 |
| Bulk modulus(GPa) | - |
| Bulk modulus(GPa) | 108.4 |
| Tensile modulus(GPa) | - |
| Tensile modulus(GPa) | 120.2 |
| Tensile modulus(GPa) | 120.2 |
| Izod toughness(J m ²) | 61 |
| Izod toughness(J m ²) | 61 |
| Hardness - Vickers(kgf mm ²) | 60 |
| Hardness - Vickers(kgf mm ²) | 60 |
| Tensile strength(MPa) | 230-460 |
| Tensile strength(MPa) | 230-460 |
| Yield strength(MPa) | 140-250 |
| Yield strength(MPa) | 140-250 |

Electrical Properties

| Element | Value |
|---|----------------|
| Electrical resistivity(μOhmcm) | 54@20@20°C |
| Superconductivity critical temperature(K) | 0.4 |
| Temperature coefficient(K ⁻¹) | 0.0038@0-100°C |

Physical Properties

| Element | Value |
|-----------------------------|----------|
| Boiling point(C) | 3287 |
| Density(gcm ³) | 4.5@20°C |

Thermal Properties

| Element | Value |
|--------------------|-------|
| Melting point(C) | 1660 |

| Element | Value |
|---|--------------|
| Latent heat of evaporation(J g ⁻¹) | 8893 |
| Latent heat of fusion(J g ⁻¹) | 365 |
| Specific heat(J K ⁻¹ kg ⁻¹) | 523@25°C |
| Thermal conductivity(W m ⁻¹ K ⁻¹) | 21.9@0-100°C |
| Coefficient of thermal expansion(x10 ⁻⁶ K ⁻¹) | 8.9@0-100°C |