

Hafnium Sputtering Target

Formula: Hf

Percentage Purity: 97%

Thickness: 1mm

Diameter: 10mm

CAS Number: 7440-58-6

UOM Code: 502-847-62

SKU: 1000118147-group

Product Code: HF00-ST-000100

Material Properties for Metals

Atomic Properties

| Element | Value |
|---|---|
| Atomic number | 72 |
| Crystal structure | Hexagonal close packed |
| Electronic structure | Xe 4f ¹⁴ 5d ² 6s ² |
| Valences shown | 4 |
| Atomic weight(amu) | 178.49 |
| Thermal neutron absorption cross-section(Barns) | 103 |
| Photo-electric work function(eV) | 3.9 |
| Natural isotope distribution(Mass No./%) | 179/ 13.8 |
| Natural isotope distribution(Mass No./%) | 176/ 5.2 |
| Natural isotope distribution(Mass No./%) | 180/ 35.2 |
| Natural isotope distribution(Mass No./%) | 174/ 0.2 |
| Natural isotope distribution(Mass No./%) | 177/ 18.5 |
| Natural isotope distribution(Mass No./%) | 178/ 27.1 |
| Atomic radius - Goldschmidt(nm) | 0.159 |
| Ionisation potential(No./eV) | 3/ 23.3 |
| Ionisation potential(No./eV) | 1/ 7.0 |
| Ionisation potential(No./eV) | 2/ 14.9 |
| Ionisation potential(No./eV) | 4/ 33.3 |

Mechanical Properties

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

| | |
|---|---------|
| Material condition | Hard |
| Material condition | Soft |
| Poisson's ratio | 0.26 |
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| Bulk modulus(GPa) | 109 |
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| Tensile modulus(GPa) | 141 |
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| Hardness - Vickers(kgf mm ²) | 150-180 |
| Tensile strength(MPa) | 445 |
| Tensile strength(MPa) | 745 |
| Yield strength(MPa) | 365 |
| Yield strength(MPa) | 240 |

Electrical Properties

| Element | Value |
|---|----------------|
| Electrical resistivity(μOhmcm) | 32.2@20@20°C |
| Superconductivity critical temperature(K) | 0.128 |
| Temperature coefficient(K ⁻¹) | 0.0044@0-100°C |

Physical Properties

| Element | Value |
|-----------------------------|-----------|
| Boiling point(C) | 4602 |
| Density(gcm ³) | 13.1@20°C |

Thermal Properties

| Element | Value |
|--|------------|
| Melting point(C) | 2227 |
| Latent heat of evaporation(J g ⁻¹) | 3700 |
| Latent heat of fusion(J g ⁻¹) | 122 |
| Specific heat(J K ⁻¹ kg ⁻¹) | 146@25°C |
| Thermal conductivity(W m ⁻¹ K ⁻¹) | 23@0-100°C |
| Coefficient of thermal expansion($\times 10^{-6}$ K ⁻¹) | 6@0-100°C |