

Hafnium Rod

Formula: Hf

Percentage Purity: 97%

Diameter: 2mm

Length: 100mm

Temper: As Drawn

CAS Number: 7440-58-6

UOM Code: 105-707-99

SKU: 1000018785-group

Product Code: HF00-RD-000102

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
Bulk modulus(GPa)	109
Tensile modulus(GPa)	141
Tensile modulus(GPa)	141
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