Hafnium Powder

Formula: Hf
Percentage Purity: 95%
Maximum Particle Size: 45µm
Weight: 20g
CAS Number: 7440-58-6
UOM Code: 106-729-38
SKU: 1000019764-group
Product Code: HF00-PD-000110

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	72
Crystal structure	Hexagonal close packed
Electronic structure	Xe $4f^{1}$? $5d^{2}$ $6s^{2}$
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
Poisson's ratio	0.26
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(x10?? K?¹)	6@0-100°C