

Rhodium Rod

Formula: Rh

Percentage Purity: 99.9%

Diameter: 3mm

Length: 50mm

Temper: As Drawn

CAS Number: 7440-16-6

UOM Code: 002-389-79

SKU: 1000000338-group

Product Code: RH00-RD-000115

Material Properties for Precious Metals

Atomic Properties

Element	Value
Atomic number	45
Crystal structure	Face centred cubic
Electronic structure	Kr 4d ⁷ 5s ¹
Valences shown	2,3,4,5,6
Atomic weight(amu)	102.9055
Thermal neutron absorption cross-section(Barns)	150
Photo-electric work function(eV)	4.6
Atomic radius - Goldschmidt(nm)	0.134
Ionisation potential(No./eV)	1/ 7.46
Ionisation potential(No./eV)	3/ 31.1
Ionisation potential(No./eV)	2/ 18.1

Mechanical Properties

Element	Value
Material condition	Hard
Material condition	Soft
Poisson's ratio	0.26
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Bulk modulus(GPa)	276
Bulk modulus(GPa)	276

Element	Value
Tensile modulus(GPa)	379
Tensile modulus(GPa)	379
Hardness - Vickers(kgf mm ²)	300
Hardness - Vickers(kgf mm ²)	120
Tensile strength(MPa)	1380-2070
Tensile strength(MPa)	690-760
Yield strength(MPa)	69-275

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	4.7@20@20°C
Temperature coefficient(K ⁻¹)	0.0044@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)(mV)	0.7

Physical Properties

Element	Value
Boiling point(C)	3727
Density(gcm ³)	12.4@20°C

Thermal Properties

Element	Value
Melting point(C)	1965
Latent heat of evaporation(J g ⁻¹)	4800
Latent heat of fusion(J g ⁻¹)	210
Specific heat(J K ⁻¹ kg ⁻¹)	244@25°C
Thermal conductivity(W m ⁻¹ K ⁻¹)	150@0-100°C
Coefficient of thermal expansion($\times 10^{-6}$ K ⁻¹)	8.5@0-100°C