

X-ray Quality Rhodium Foil (Light Tight)

Grade: X-ray Quality

Formula: Rh

Percentage Purity: 99.9%

Temper: As Rolled

Thickness: 0.05mm

Length 1: 35mm

Length 2: 42mm

CAS Number: 7440-16-6

UOM Code: 297-029-87

SKU: 1000126511-group

Product Code: RH00-FL-000112

Material Properties for Precious Metals

Atomic Properties

Element	Value
Atomic number	45
Crystal structure	Face centred cubic
Electronic structure	Kr 4d ⁹ 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
Poisson's ratio	0.26

Element	Value
Bulk modulus(GPa)	276
Bulk modulus(GPa)	276
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