

Lutetium Disk

Formula: Lu

Percentage Purity: 99%

Temper: As Rolled

Thickness: 0.1mm

Diameter: 18mm

CAS Number: 7439-94-3

UOM Code: 377-140-45

SKU: 1000154613-group

Product Code: LU00-FL-000110

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	71
Crystal structure	Hexagonal close packed
Electronic structure	Xe 4f ¹⁴ 5d ¹ 6s ²
Valences shown	3
Atomic weight(amu)	174.967
Thermal neutron absorption cross-section(Barns)	75
Photo-electric work function(eV)	3.3
Natural isotope distribution(Mass No./%)	175/ 97.4
Natural isotope distribution(Mass No./%)	176/ 2.6
Atomic radius - Goldschmidt(nm)	0.173
Ionisation potential(No./eV)	1/ 5.43
Ionisation potential(No./eV)	2/ 13.9

Mechanical Properties

Element	Value
Material condition	Polycrystalline
Poisson's ratio	0.223
Bulk modulus(GPa)	42
Tensile modulus(GPa)	84
Hardness - Vickers(kgf mm ⁻²)	85

Electrical Properties

Element	Value
Electrical resistivity(μOhmcm)	68@20@20°C
Superconductivity critical temperature(K)	0.1
Temperature coefficient(K^{-1})	0.0024@0-100°C

Physical Properties

Element	Value
Boiling point(C)	3395
Density(gcm^{-3})	9.842@20°C

Thermal Properties

Element	Value
Melting point(C)	1663
Latent heat of evaporation(J g^{-1})	2155
Latent heat of fusion(J g^{-1})	110
Specific heat($\text{J K}^{-1} \text{kg}^{-1}$)	155@25°C
Thermal conductivity($\text{W m}^{-1} \text{K}^{-1}$)	16.4@0-100°C
Coefficient of thermal expansion($\times 10^{-6} \text{K}^{-1}$)	12.5@0-400°C