

# Lutetium Foil

**Formula:** Lu

**Percentage Purity:** 99%

**Temper:** As Rolled

**Thickness:** 0.025mm

**Length 1:** 10mm

**Length 2:** 10mm

**CAS Number:** 7439-94-3

**UOM Code:** 589-819-45

**SKU:** 1000125945-group

**Product Code:** LU00-FL-000100

## Material Properties for Metals

### Atomic Properties

Element	Value
Atomic number	71
Crystal structure	Hexagonal close packed
Electronic structure	Xe 4f <sup>14</sup> 5d <sup>1</sup> 6s <sup>2</sup>
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

Element	Value
Hardness - Vickers( kgf mm <sup>2</sup> )	85

### Electrical Properties

Element	Value
Electrical resistivity( μOhmcm )	68@20@20°C
Superconductivity critical temperature( K )	0.1
Temperature coefficient( K <sup>-1</sup> )	0.0024@0-100°C

### Physical Properties

Element	Value
Boiling point( C )	3395
Density( gcm <sup>3</sup> )	9.842@20°C

### Thermal Properties

Element	Value
Melting point( C )	1663
Latent heat of evaporation( J g <sup>-1</sup> )	2155
Latent heat of fusion( J g <sup>-1</sup> )	110
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	155@25°C
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	16.4@0-100°C
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	12.5@0-400°C