Dysprosium Foil (Light Tight)

Formula: Dy
Percentage Purity: 99%
Temper: As Rolled
Thickness: 0.1mm
Length 1: 50mm
Length 2: 50mm
CAS Number: 7429-91-6
UOM Code: 109-036-76
SKU: 1000021727-group
Product Code: DY00-FL-000120

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	66
Crystal structure	Hexagonal close packed
Electronic structure	Xe $4f^{1}$? $6s^{2}$
Valences shown	3
Atomic weight(amu)	162.5
Thermal neutron absorption cross-section(Barns)	930
Natural isotope distribution(Mass No./%)	164/ 28.20
Natural isotope distribution(Mass No./%)	160/ 2.34
Natural isotope distribution(Mass No./%)	163/ 24.90
Natural isotope distribution(Mass No./%)	158/ 0.10
Natural isotope distribution(Mass No./%)	156/ 0.06
Natural isotope distribution(Mass No./%)	161/ 18.90
Natural isotope distribution(Mass No./%)	162/ 25.50
Atomic radius - Goldschmidt(nm)	0.177
Ionisation potential(No./eV)	1/ 5.93
Ionisation potential(No./eV)	2/ 11.67

Mechanical Properties

Element	Value

Material condition	Polycrystalline
Poisson's ratio	0.232
Bulk modulus(GPa)	39.2
Tensile modulus(GPa)	63.1
Hardness - Vickers(kgf mm?²)	55
Tensile strength(MPa)	248
Yield strength(MPa)	228

Electrical Properties

Element	Value
Electrical resistivity(µOhmcm)	91@20@20°C
Temperature coefficient(K?¹)	0.0012@0-100°C

Physical Properties

Element	Value
Boiling point(C)	2562
Density(gcm?³)	8.536@20°C

Thermal Properties

Element	Value
Melting point(C)	1412
Latent heat of evaporation(J g?¹)	1725
Latent heat of fusion(J g?¹)	105
Specific heat(J K?¹ kg?¹)	173@25°C
Thermal conductivity(W m?¹ K?¹)	10.7@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	8.6@0-100°C