Bismuth Foil

Formula: Bi
Percentage Purity: 99.999%
Thickness: 2mm
Length 1: 10mm
Length 2: 10mm
CAS Number: 7440-69-9
UOM Code: 053-774-95
SKU: 1000007583-group
Product Code: BI00-FL-000200

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	83
Crystal structure	Rhombohedral
Electronic structure	Xe $4f^{1}$? $5d^{1}$? $6s^{2}$ $6p^{3}$
Valences shown	3, 5
Atomic weight(amu)	208.9804
Thermal neutron absorption cross-section(Barns)	0.034
Photo-electric work function(eV)	4.4
Atomic radius - Goldschmidt(nm)	0.182
Ionisation potential(No./eV)	5/ 56.0
Ionisation potential(No./eV)	1/ 7.29
Ionisation potential(No./eV)	3/ 25.6
Ionisation potential(No./eV)	4/ 45.3
Ionisation potential(No./eV)	6/ 88.3
Ionisation potential(No./eV)	2/ 16.7

Mechanical Properties

Element	Value
Material condition	Polycrystalline
Poisson's ratio	0.33
Bulk modulus(GPa)	31.3

Element	Value
Tensile modulus(GPa)	34
Hardness - Vickers(kgf mm?²)	16-19

Electrical Properties

Element	Value
Electrical resistivity(µOhmcm)	117@20@20°C
Temperature coefficient(K?¹)	0.0046@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)(mV)	-7.34

Physical Properties

Element	Value
Boiling point(C)	1560
Density(gcm?³)	9.8@20°C

Thermal Properties

Element	Value
Melting point(C)	271.3
Latent heat of evaporation(J g?¹)	857
Latent heat of fusion(J g?¹)	52
Specific heat(J K?¹ kg?¹)	124@25°C
Thermal conductivity(W m?¹ K?¹)	7.9@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	13.4@0-100°C