Silver Foil/Sheet

High-purity Ag foil (99.9–99.999%, 0.001–6mm, sides up to 300mm) for electrical contacts, thermal interface layers, EMI/RFI shielding & current collectors. **SKU:** 1000000334-group
Product Code: AG00

Material Properties for Precious Metals

Atomic Properties

Element	Value
Atomic number	47
Crystal structure	Face centred cubic
Electronic structure	Kr 4d¹? 5s¹
Valences shown	1-2,2
Atomic weight(amu)	107.8682
Thermal neutron absorption cross-section(Barns)	63.8
Photo-electric work function(eV)	4.7
Natural isotope distribution(Mass No./%)	107/ 51.83
Natural isotope distribution(Mass No./%)	109/ 48.17
Atomic radius - Goldschmidt(nm)	0.144
Ionisation potential(No./eV)	2/ 21.5
Ionisation potential(No./eV)	1/ 7.58
Ionisation potential(No./eV)	3/ 34.8

Mechanical Properties

Element	Value
Material condition	Hard
Material condition	Soft
Poisson's ratio	0.367
Poisson's ratio	0.367
Bulk modulus(GPa)	103.6
Bulk modulus(GPa)	103.6
Tensile modulus(GPa)	82.7
Tensile modulus(GPa)	82.7
Izod toughness(J m?¹)	5

Element	Value
Hardness - Vickers(kgf mm?²)	95
Hardness - Vickers(kgf mm?²)	25
Tensile strength(MPa)	330
Tensile strength(MPa)	172

Electrical Properties

Element	Value
Electrical resistivity(µOhmcm)	1.63@20°C
Temperature coefficient(K?¹)	0.0041@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)(mV)	0.74

Physical Properties

Element	Value
Boiling point(C)	2212
Density(gcm?³)	10.5@20°C

Thermal Properties

Element	Value
Melting point(C)	961.9
Latent heat of evaporation(J g?¹)	2390
Latent heat of fusion(J g?¹)	103
Specific heat(J K?¹ kg?¹)	237@25°C
Thermal conductivity(W m?¹ K?¹)	429@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	19.1@0-100°C