Lead Spooled Wire

Lead spooled wire is a soft, conductive, corrosion-resistant wire supplied in continuous form for shielding, electrical, and metrology uses. **SKU:** 1000000481-group
Product Code: PB00-WR-000108

Material Properties for Metals

Atomic Properties

Element	Value
Atomic number	82
Crystal structure	Face centred cubic
Electronic structure	Xe $4f^{1}?$ $5d^{1}?$ $6s^{2}$ $6p^{2}$
Valences shown	2, 4
Atomic weight(amu)	207.2
Thermal neutron absorption cross-section(Barns)	0.18
Photo-electric work function(eV)	4
Natural isotope distribution(Mass No./%)	207/ 22.1
Natural isotope distribution(Mass No./%)	208/ 52.4
Natural isotope distribution(Mass No./%)	206/ 24.1
Natural isotope distribution(Mass No./%)	204/ 1.4
Atomic radius - Goldschmidt(nm)	0.175
Ionisation potential(No./eV)	5/ 68.8
Ionisation potential(No./eV)	3/ 31.9
Ionisation potential(No./eV)	4/ 42.3
Ionisation potential(No./eV)	2/ 15.03
Ionisation potential(No./eV)	1/ 7.42

Mechanical Properties

Element	Value
Hardness - Mohs	1.5
Material condition	Polycrystalline
Material condition	Sand cast
Poisson's ratio	0.44
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Element	Value
Bulk modulus(GPa)	45.8
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Tensile modulus(GPa)	16.1
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Tensile strength(MPa)	12
Yield strength(MPa)	5.5

Electrical Properties

Element	Value
Electrical resistivity(µOhmcm)	20.6@20°C
Superconductivity critical temperature(K)	7.196
Temperature coefficient(K?¹)	0.0042@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)(mV)	0.44

Physical Properties

Element	Value
Boiling point(C)	1740
Density(gcm?³)	11.35@20

Thermal Properties

Element	Value
Melting point(C)	327.5
Latent heat of evaporation(J g?¹)	862
Latent heat of fusion(J g?¹)	23.2
Specific heat(J K?¹ kg?¹)	159@25°C
Thermal conductivity(W m?¹ K?¹)	35.3@0-100°C
Coefficient of thermal expansion(x10?? K?¹)	29@0-100°C