

# Zinc Spooled Wire

**Formula:** Zn

**Percentage Purity:** 99%

**Product Shape:** Spooled

**Diameter:** 0.025mm

**Length:** 1m

**Temper:** As Drawn

**CAS Number:** 7440-66-6

**UOM Code:** 008-440-73

**SKU:** 1000001160-group

**Product Code:** ZN00-WR-000180

## Material Properties for Metals

### Atomic Properties

Element	Value
Atomic number	30
Crystal structure	Hexagonal close packed
Electronic structure	Ar 3d <sup>10</sup> 4s <sup>2</sup>
Valences shown	2
Atomic weight( amu )	65.38
Thermal neutron absorption cross-section( Barns )	1.1
Photo-electric work function( eV )	4.3
Natural isotope distribution( Mass No./% )	64/ 48.6
Natural isotope distribution( Mass No./% )	67/ 4.1
Natural isotope distribution( Mass No./% )	68/ 18.8
Natural isotope distribution( Mass No./% )	70/ 0.6
Natural isotope distribution( Mass No./% )	66/ 27.9
Atomic radius - Goldschmidt( nm )	0.137
Ionisation potential( No./eV )	6/ 108
Ionisation potential( No./eV )	1/ 9.39
Ionisation potential( No./eV )	4/ 59.4
Ionisation potential( No./eV )	3/ 39.7
Ionisation potential( No./eV )	2/ 17.96
Ionisation potential( No./eV )	5/ 82.6

## Mechanical Properties

Element	Value
Hardness - Mohs	2.5
Material condition	Polycrystalline
Poisson's ratio	0.249
Bulk modulus( GPa )	69.4
Tensile modulus( GPa )	104.5

## Electrical Properties

Element	Value
Electrical resistivity( $\mu\text{Ohmcm}$ )	5.96@20@20°C
Superconductivity critical temperature( K )	0.85
Temperature coefficient( $\text{K}^{-1}$ )	0.0042@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)( mV )	0.76

## Physical Properties

Element	Value
Boiling point( C )	907
Density( $\text{gcm}^{-3}$ )	7.14@20°C

## Thermal Properties

Element	Value
Melting point( C )	419.5
Latent heat of evaporation( $\text{J g}^{-1}$ )	1748
Latent heat of fusion( $\text{J g}^{-1}$ )	111
Specific heat( $\text{J K}^{-1} \text{kg}^{-1}$ )	388@25°C
Thermal conductivity( $\text{W m}^{-1} \text{K}^{-1}$ )	116@0-100°C
Coefficient of thermal expansion( $\times 10^{-6} \text{K}^{-1}$ )	31@0-100°C