

# Indium Pellets

Indium pellets are malleable, low-vapor-pressure metal forms used for precise alloying, bonding, and deposition. Applied in electronics, energy, and research for soldering, thin films, and thermal management. **SKU:** 1000004046-group

**Product Code:** IN00-LP-000100

## Material Properties for Metals

### Atomic Properties

Element	Value
Atomic number	49
Crystal structure	Face centred tetragonal
Electronic structure	Kr 4d <sup>10</sup> 5s <sup>2</sup> 5p <sup>1</sup>
Valences shown	1, 2, 3
Atomic weight( amu )	114.82
Thermal neutron absorption cross-section( Barns )	194
Photo-electric work function( eV )	4.12
Natural isotope distribution( Mass No./% )	113/ 4.3
Natural isotope distribution( Mass No./% )	115/ 95.7
Atomic radius - Goldschmidt( nm )	0.157
Ionisation potential( No./eV )	3/ 28.0
Ionisation potential( No./eV )	Apr-54
Ionisation potential( No./eV )	2/ 18.9
Ionisation potential( No./eV )	1/ 5.79

### Mechanical Properties

Element	Value
Material condition	Polycrystalline
Material condition	Soft
Poisson's ratio	0.45
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Bulk modulus( GPa )	35.3
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Tensile modulus( GPa )	10.6

<b>Element</b>	<b>Value</b>
Tensile modulus( GPa )	10.6
Hardness - Vickers( kgf mm <sup>2</sup> )	10
Tensile strength( MPa )	2.6-4.5

## **Electrical Properties**

<b>Element</b>	<b>Value</b>
Electrical resistivity( $\mu\text{Ohmcm}$ )	8.8@20°C
Superconductivity critical temperature( K )	3.41
Temperature coefficient( K <sup>-1</sup> )	0.0052@0-100°C
Thermal emf against Pt (cold 0C - hot 100C)( mV )	0.69

## **Physical Properties**

<b>Element</b>	<b>Value</b>
Boiling point( C )	2080
Density( gcm <sup>3</sup> )	7.3@20°C

## **Thermal Properties**

<b>Element</b>	<b>Value</b>
Melting point( C )	156.6
Latent heat of evaporation( J g <sup>-1</sup> )	2024
Latent heat of fusion( J g <sup>-1</sup> )	28.5
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	234@25°C
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	81.8@0-100°C
Coefficient of thermal expansion( $\times 10^{-6}$ K <sup>-1</sup> )	24.8@0-100°C