

## Indium Corp. Indalloy® 1E In-Sn Solder Alloy

Category : Metal , Nonferrous Metal , Indium Alloy , Solder/Braze Alloy , Tin Alloy

### Material Notes:

Lowest melting point practical solder. Indium-tin eutectic with sharp melting point. Has good wettability on glass, quartz and many ceramics. Has good low temperature malleability and therefore compensates for some difference in coefficient of expansion when dissimilar materials are soldered. Information provided by the manufacturer, Indium Corporation.

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Indium-Corp-Indalloy-1E-In-Sn-Solder-Alloy.php](http://www.lookpolymers.com/polymer_Indium-Corp-Indalloy-1E-In-Sn-Solder-Alloy.php)

Physical Properties	Metric	English	Comments
Density	7.30 g/cc	0.264 lb/in <sup>3</sup>	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	4.5	4.5	
	@Load 100 kg, Time 30.0 sec	@Load 220 lb, Time 0.00833 hour	
Tensile Strength, Ultimate	11.9 MPa	1730 psi	
Elongation at Break	83 %	83 %	
Shear Strength	11.2 MPa	1620 psi	Shear Bond Holding Strength

Thermal Properties	Metric	English	Comments
CTE, linear	20.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	11.1 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature 20.0 $\text{Å}^\circ\text{C}$	@Temperature 68.0 $\text{Å}^\circ\text{F}$	
Thermal Conductivity	34.0 W/m-K	236 BTU-in/hr-ft <sup>2</sup> - $\text{Å}^\circ\text{F}$	
	@Temperature 85.0 $\text{Å}^\circ\text{C}$	@Temperature 185 $\text{Å}^\circ\text{F}$	
Melting Point	118 $\text{Å}^\circ\text{C}$	244 $\text{Å}^\circ\text{F}$	Eutectic
Solidus	118 $\text{Å}^\circ\text{C}$	244 $\text{Å}^\circ\text{F}$	
Liquidus	118 $\text{Å}^\circ\text{C}$	244 $\text{Å}^\circ\text{F}$	

Component Elements Properties	Metric	English	Comments
Indium, In	52 %	52 %	
Tin, Sn	48 %	48 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000150 ohm-cm	0.0000150 ohm-cm	

## Contact Songhan Plastic Technology Co.,Ltd.

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