

Indium Corp. Indalloy® 281 Bi-Sn Solder Alloy

Category : Metal , Nonferrous Metal , Bismuth Alloy , Solder/Braze Alloy

Material Notes:

Good low melting point solder for electronics assembly of for applications where Cd and Pb are to be avoided, and for thermo-electric applications. Shear rate sensitive. Information provided by the manufacturer, Indium Corporation.

Order this product through the following link:

http://www.lookpolymers.com/polymer_Indium-Corp-Indalloy-281-Bi-Sn-Solder-Alloy.php

Physical Properties	Metric	English	Comments
Density	8.56 g/cc	0.309 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	23	23	2mm ball
	@Load 4.00 kg	@Load 8.82 lb	
Tensile Strength, Ultimate	55.2 MPa	8010 psi	
Elongation at Break	55 %	55 %	% elongation on 5.65 (sq. root Area) gauge length
Shear Strength	3.40 MPa	493 psi	Shear Bond Holding Strength

Thermal Properties	Metric	English	Comments
Heat of Fusion	44.8 J/g	19.3 BTU/lb	
CTE, linear	15.0 $\mu\text{m}/\text{m}\cdot\text{Å}^\circ\text{C}$	8.33 $\mu\text{in}/\text{in}\cdot\text{Å}^\circ\text{F}$	
	@Temperature 20.0 $\text{Å}^\circ\text{C}$	@Temperature 68.0 $\text{Å}^\circ\text{F}$	
Specific Heat Capacity	0.167 J/g- $\text{Å}^\circ\text{C}$	0.0399 BTU/lb- $\text{Å}^\circ\text{F}$	Solid
	0.201 J/g- $\text{Å}^\circ\text{C}$	0.0480 BTU/lb- $\text{Å}^\circ\text{F}$	Liquid
Thermal Conductivity	19.0 W/m-K	132 BTU-in/hr-ft ² - $\text{Å}^\circ\text{F}$	
	@Temperature 85.0 $\text{Å}^\circ\text{C}$	@Temperature 185 $\text{Å}^\circ\text{F}$	
Melting Point	138 $\text{Å}^\circ\text{C}$	280 $\text{Å}^\circ\text{F}$	Eutectic
Solidus	138 $\text{Å}^\circ\text{C}$	280 $\text{Å}^\circ\text{F}$	
Liquidus	138 $\text{Å}^\circ\text{C}$	280 $\text{Å}^\circ\text{F}$	

Component Elements Properties	Metric	English	Comments
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Component Elements Properties	Metric	English	Comments
Tin, Sn	42 %	42 %	

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.0000380 ohm-cm	0.0000380 ohm-cm	

Contact Songhan Plastic Technology Co.,Ltd.

Website : www.lookpolymers.com

Email : sales@lookpolymers.com

Tel : +86 021-51131842

Mobile : +86 13061808058

Skype : lookpolymers

Address : United North Road 215,Fengxian District, Shanghai City,China