

PRODUCT DATA SHEET

CORE 140LT

Low-Temperature Cored Wire Formula

Introduction

Indium Corporation's **CORE 140LT** is a low-temperature bismuth/tin/silver flux-cored wire product offered to meet the lower soldering temperature requirements in today's electronics assembly market.

Features

- Low-temperature alloy option
- Even-layer winding

Formula	CORE 140LT
Copper Mirror (IPC-TM-650 2.3.32)	No complete removal of the copper mirror, therefore, is classified as an 'L'
Corrosion (IPC-TM-650 2.6.15)	No visible reactions between flux residue and copper surface finish
Contains Halogens (IPC-TM-650 2.3.33)	Yes, therefore, would be classified as an 'L1'
RoHS- and REACH-Compliant	YES

Indalloy® Number	Composition	Liquidus (°C)	Solidus (°C)	Comments
282D	57Bi/1Ag/Cu/In Sn – Balance	141	137	More malleable and ductile than Indalloy®281.

Product Options

Alloy	Diameter	Flux Percentage
Indalloy®282D	0.032" (0.8mm)	2%
	0.060" (1.5mm)	

Shelf Life

	Warranted	Practical
CORE 140LT	1 year from DOM	Indefinite*

Always store cored wire in a cool, dry environment. The main causes of degraded cored wire reflow performance are the buildup of a thick oxide layer on the surface of the wire, caused by prolonged exposure to higher than normal temperature and humidity conditions.

* Indium Corporation will be re-evaluating the soldering performance at certain future time intervals in an effort to extend the shelf life.

Process Recommendations

- Lowest Tip Temperature: 193°C / 380°F

Characteristics of Bismuth

Bismuth as a pure element is very brittle. When bismuth is added to tin or lead, the bismuth works to reduce the melting temperature of the resulting alloy, and the tin or lead works to reduce the brittleness of the alloyed material. Generally, alloys of up to 58% bismuth produce the most workable product.

The brittle nature of bismuth-tin wire will make the wire more susceptible to breaking during unspooling. This is a known trait of this alloy. Careful, deliberate unspooling will result in less wire breakages.

Technical Support

Indium Corporation's internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Materials Science as it applies to the electronics and semiconductor sectors, Technical Support Engineers provide expert advice in solder properties, alloy compatibility and selection of solder preforms, wire, ribbon, and paste. Indium Corporation's Technical Support Engineers provide rapid response to all technical inquiries.

Safety Data Sheets

Please refer to the SDS document within the product shipment, or contact our local team to receive a copy.

This product data sheet is provided for general information only. It is not intended, and shall not be construed, to warrant or guarantee the performance of the products described which are sold subject exclusively to written warranties and limitations thereon included in product packaging and invoices. All Indium Corporation's products and solutions are designed to be commercially available unless specifically stated otherwise.

All of Indium Corporation's solder paste and preform manufacturing facilities are IATF 16949:2016 certified. Indium Corporation is an ISO 9001:2015 registered company.

From One Engineer To Another®

Contact our engineers: askus@indium.com

Learn more: www.indium.com



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ASIA +65 6268 8678 • CHINA +86 (0) 512 628 34900 • EUROPE +44 (0) 1908 580400 • USA +1 315 853 4900



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