

# PRODUCT DATA SHEET

# Bar Solder

## Introduction

Indium Corporation manufactures **bar solder** specifically to surpass the strict quality demands of the surface mount industry in order to provide more consistent and reliable performance. **Bar solder** is available in a full range of SnPb and Pb-free alloys, including industry standard Sn63 and SAC305. To eliminate the chance of contaminating Pb-free solder with Pb, ingots come in two shapes to designate the alloy. All **bar solder** complies with the requirements of ASTM B-32, J-STD-006 (formerly QQS-571F) and JIS-Z-3282.

Indium Corporation also features RoHS-compliant Sn99.5 Pb-free **bar solder** (99.5Sn, 0.5Cu + Co), which is manufactured from electrolytically processed tin, copper, and cobalt to create a solder so pure it far exceeds the most common specification requirements. The addition of cobalt forms shiny, uniform joints, and reduces the amount of dross generated during wave soldering. The melting point is approximately 228°C and recommended operating temperatures are between 260–270°C.

## Standard Packaging and Availability

**Bar solder** ingots are packed in 25lb boxes. Deliveries can be arranged to suit your production schedule.

Solder Bar Alloy	Shelf Life
Tin-Lead Alloys	Indefinite
Lead-Free Alloys	
High-Lead Alloys (>85%)	2 years

*Bar solder has an indefinite shelf life when stored in a dry, non-corrosive location. It is possible that the surface may lose its shiny appearance, resulting in a dull shade of gray. This is the result of a surface phenomenon and will not impact the product's performance.*

## Quality and Process Control

Each batch of solder alloy used to manufacture Indium Corporation's bar solder and chips is analyzed for metallic composition and impurities. Indium Corporation will certify its bar solder to meet customer specifications with a Certificate of Compliance or provide a Certificate of Analysis upon request.



Pb-free bar solder



SnPb bar solder

## Solder Analysis

Solder pot analysis is important for maintaining solder joint quality and optimal first-pass soldering yield. By allowing a solder pot to collect too high a level of contaminants from circuit boards and components, the solder can get sluggish, causing overly large fillets, poor wetting, bridging, and expensive rework and repair. Indium Corporation's solder analysis service allows customers to purchase an individual analysis or pre-paid solder analysis mailers in bulk. Contact Indium Corporation at 1-315-853-4900 or 1-800-4INDIUM.

## Solder Reclaim

A normal part of a wave soldering process is the creation of solder dross and the occasional dumping of metal-contaminated solder pots. Indium Corporation provides customers with a way to recycle dross and scrap solder, by receiving the materials and returning the metal value to the customer as a check, credit, or by converting the usable bar for a fee. To get started with Indium Corporation's solder reclaim program, contact Indium Corporation and we will ship black (Pb-containing) and/or green (Pb-free) dross collection buckets free of charge. Recycling instructions will explain what to do and who to call when you have collected enough dross and scrap solder.

## 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

The SDS for this product can be found online at <http://www.indium.com/sds>

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®

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