PRODUCT DATA SHEET

Bar Solder Chips

Introduction

Bar Solder Chips are small pieces of Indium Corporation's electronic-grade bar solder, typically used to fill smaller solder pots or to quicken the melting of solder in a new solder pot. The greater surface area of the chips allows for better heat transfer between the solder pot and the metal and quickens the melting process.

Chips are made by cutting Indium Corporation's electronic-grade bar solder into smaller pieces, resulting in chips with the same properties as the bar solder. The tin used to produce the chips has a minimum purity of 99.93%.

By extruding the bar from continually cast, closed-chamber billets, oxides that would normally form during a cast solder bar solidification process are greatly reduced, yielding lower dross and better joint formation.

Indium Corporation's selection of SnPb, Pb-free SAC, and Pb-free SAC alternative alloys meets the needs of virtually every customer.

Available Alloys

Indium Corporation produces electronic-grade bar solder and chips in virtually any soft solder alloy containing the major components of tin (Sn), lead (Pb), silver (Ag), copper (Cu), antimony (Sb), and bismuth (Bi). Indium Corporation also produces alloys that contain minor components used to reduce dross formation and refine grain structure. These alloys are also used for high-temperature applications that increase drop shock resistance or have increased thermal fatigue resistance. The most commonly used alloys and the maximum impurity specifications are shown in the following table.

Physical Properties

Length	1.5" maximum
Cross-Section Lead-Containing Alloys Pb-Free Alloys	 Regular trapezoid Triangle with rounded corners
Packaging	25lbs per box

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.

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 drosses and the occasional dumping of metal-contaminated solder pots. Indium Corporation provides customers with a way to recycle dross and scrap solder, reclaiming some of its original value and making it more pure than virgin material. 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 Material 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

From One Engineer To Another®

Contact our engineers: **askus@indium.com**

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