

# PRODUCT DATA SHEET

# Indalloy<sup>®</sup>291

## Introduction

**Indalloy<sup>®</sup>291** is a direct replacement to the previously patent-protected Sn100C<sup>®</sup>\* alloy. **Indalloy<sup>®</sup>291** is commonly used in wave soldering and reworking processes as a low-silver, lead-free alternative to SAC305. **Indalloy<sup>®</sup>291** is available in bar, solder paste, and solid and cored wire.

Product Name	Melting Point	Tin	Copper	Nickel	Germanium
Indalloy <sup>®</sup> 291	227°C	99.25%	0.70%	0.05%	≤0.01%

## Features

- Low cost of ownership—no Ag
- Creates shiny, aesthetically pleasing solder joints
- Low dross creation rate
- Low copper erosion

## Packaging

Solder Shape	Weight and Packaging	IPN
Indalloy <sup>®</sup> 291 Triangular Bar	25lbs per box	BAROT-051425
Indalloy <sup>®</sup> 291 Hanging Bar	Approx. 50lbs per box	BAROT-051505

## Shelf Life

**Indalloy<sup>®</sup>291** 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.

Product Name	Shelf Life
Indalloy <sup>®</sup> 291	Indefinite

## Quality and Process Control

**Indalloy<sup>®</sup>291** bar and wire will comply with the requirements of ASTM B-32, J-STD-006 (formerly QQS-571F) and JIS-Z-3282. Each batch of solder alloy used to manufacture Indium Corporation's bar solder, bar solder chips, and cored wire is analyzed for metallic composition and impurities. Indium Corporation will certify its bar solder and cored wire to meet customer specifications with a Certificate of Compliance or provide a Certificate of Analysis upon request.

\*Trademark owned by Nihon Superior Co., Ltd.

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<sup>®</sup>

Contact our engineers: [askus@indium.com](mailto:askus@indium.com)

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## Solder Analysis

Frequent analysis of **Indalloy<sup>®</sup>291** wave soldering solder pots is recommended. 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 or too low a level of important compositional elements, 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.



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