

PRODUCT DATA SHEET

CW-301

Water-Soluble Cored Wire Solder



Introduction

CW-301 Wire Solder is cored with a high-reliability water-soluble flux that is compatible with Indium Corporation's full line of Pb-free soldering materials. It provides excellent solder spread with minimal smoking and low odor. The fast wetting speed is beneficial in minimizing rework cycle time which is typically longer with Pb-free solders.

Features

- Optimized for use with Sn/Pb and Pb-free assembly and rework processes
- Excellent cleanability with cold water
- Fast and excellent wetting to common Pb-free surface finishes including: ImSn, ENIG, OSP, and ImAg
- Minimal spattering and low odor
- Resistant to charring

Product Description

Spool Weight	500g or 1 lb
Flux Percentage	3%
Available Alloys	Per J-STD-006B Variation C 96.5Sn/3.0Ag/0.5Cu (SAC305) 63Sn/37Pb 62Sn/36Pb/2Ag

Wire Diameters

Wire Solder Length Per Spool	
Wire Diameter	96.5Sn/3.0Ag/0.5Cu (SAC305)
0.010" ± .002" (.254mm ± .051mm)	1,950 ft (595m)
0.015" ± .002" (.381mm ± .051mm)	2,025 ft (618m)
0.020" ± .002" (.508mm ± .051mm)	1,140 ft (347m)
0.032" ± .002" (.813mm ± .051mm)	445 ft (136m)

Values are only approximate. Actual lengths may vary.

Belcore and J-STD-004A Tests and Results

Test	Result	Test	Result
IPC J-STD-004		Bellcore GR-78-CORE	
Flux Type Classification	ORH1	Electromigration	Pass
SIR	Pass	All information is for reference only. Not to be used as incoming product specifications.	
Electromigration	Pass		

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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.

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Residue Removal

The flux in **CW-301** is formulated for use in water-wash assembly processes. The post-soldering flux residue should be removed as soon as possible after soldering. The residue may be readily cleaned in conventional equipment without the use of saponifiers or detergents. It is important that the cleanliness of boards and components are thoroughly checked after soldering and cleaning. Deionized water is recommended for final rinse.

Shelf Life

	Warranted	Practical*
Tin-Lead Alloys	3 years from DOM	Indefinite
Lead-Free Alloys	3 years from DOM	Indefinite
>85% High-Lead	2 years from DOM	Indefinite

*When stored at less than 40°C and less than 80% RH

When stored in a cool, dry environment, there is no reason that Indium Corporation's **CW-301** cannot retain its intended soldering properties for many years. 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, or the buildup of lead carbonate on high-lead (>85%) alloy-cored wire shipped or stored under very high humidity conditions.

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>



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