

## PRODUCT DATA SHEET

# CW-908

## Aluminum-Cored Solder Wire

### Features

- Specifically designed for soldering to aluminum and aluminum alloys
- No zinc chloride
- Water rinse necessary to remove flux residue after soldering
- Not suitable for electrical or electronics applications

### Introduction

**CW-908 Aluminum-Cored Solder Wire** is specifically designed for soldering to aluminum and aluminum alloys. Aluminum is a metal that it is hard to solder due to the high surface tension difference between it and molten solder alloy. This occurs because aluminum rapidly forms a tenacious oxide layer whenever it is exposed to air. The oxide layer impedes the solder from spreading evenly on an aluminum surface. Special fluxes are required to remove the oxide and to prevent it from reforming.

### Compatible Solder Alloys for Aluminum Bonding

Aluminum flux can be used with certain solders to directly solder aluminum. Most solder alloys 180°C–315°C are capable of bonding to aluminum, including tin-zinc, tin-silver, tin-lead-silver, and tin-copper alloys. Indium Corporation has chosen the three lead-free alloys listed above as the preferred offering. While SnZn alloys are compatible with aluminum, they are incompatible with the **CW-908** flux and therefore, are not available. High temperature lead-containing alloys are compatible with both aluminum and the flux, but we have limited application for them at this time.

### Preferred Lead-Free Alloys

- 96.5Sn/3.5Ag
- 97Sn/3Cu
- Sn995



### Residue Removal

Due to the corrosive nature of this flux residue after soldering, **CW-908 Aluminum-Cored Solder Wire** requires removal of the flux residue. Complete residue removal can be accomplished by a chemical neutralizer rinse followed by several water washings. A first rinse in water with the addition of 2-3% HCl, while not absolutely necessary, helps remove flux residues and facilitates better second- and third-stage cleaning. All flux residues should be thoroughly removed to prevent corrosion.

### Storage

**CW-908 Aluminum-Cored Solder Wire** has a shelf life of 2 years when stored in a dry, non-corrosive environment such as a low-humidity dry cabinet. Direct sunlight, excessive humidity, and storage near heat sources should be avoided.

### Safety Data Sheets

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

### Commonly Available Diameters & Packaging

Metric Units				English Units			
Diameter	Spool Weight	SAC305 Length	63Sn/37Pb Length	Diameter	Spool Weight	SAC305 Length	63Sn/37Pb Length
0.25mm ± 0.05	125 g	368 m	324 m	0.010" ± 0.002"	1/4 lb	1097 ft	966 ft
0.40mm ± 0.05	125 g	164 m	144 m	0.015" ± 0.002"	1/4 lb	487 ft	429 ft
0.50mm ± 0.05	500 g	368 m	324 m	0.020" ± 0.002"	1 lb	1097 ft	966 ft
0.60mm ± 0.05	500 g	236 m	208 m	0.025" ± 0.002"	1 lb	702 ft	618 ft
0.80mm ± 0.05	500 g	144 m	127 m	0.032" ± 0.002"	1 lb	428 ft	377 ft
1.00mm ± 0.05	500 g	92 m	81 m	0.040" ± 0.002"	1 lb	274 ft	242 ft
1.55mm ± 0.05	500 g	38 m	34 m	0.062" ± 0.002"	1 lb	114 ft	101 ft
<b>Standard Flux Percentage</b>							
3%				2.7 to 3.2%			

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