

PRODUCT DATA SHEET

CW-219

No-Clean Flux-Cored Wire

Introduction

Indium Corporation has developed a range of no-clean flux-cored wire solutions to meet the needs of virtually every assembly and rework operation. Flux-cored wire solutions are created when the desired alloy, cored wire flux, and flux percentage are combined into a void-free, perfectly layer-wound package, which can be easily used for both hand soldering and automated wire feed solder.

Over time, cored wire formulas have evolved to mask both rosin and chemical odors with artificial fragrances, and mask halogen content by using complex activator systems. Indium Corporation's new line of flux-cored wires goes back to the basics by adapting simple and traditional cored wire fluxes to today's assembly needs by eliminating the added fragrances and activators. An additional benefit of this line of flux-cored wires is that spattering is reduced when compared to other formulas.

Cored Wire Flux Formulation

CW-219 Highly-Activated Rosin Flux is designed for soldering to very oxidized copper, nickel, brass, bronze, zinc coatings, tin-plated steel, and similar surfaces. Customers prefer **CW-219** for non-sensitive applications where they would like to increase the speed of wetting to achieve higher throughput. **CW-219** has been confirmed to meet the requirements of J-STD-004 and J-STD-004B type ROM1.

Formula	CW-219
Application	Highly activated rosin
IPC J-STD-004*	ROM1
IPC J-STD-004B*	ROM1
Rosin Containing	Yes
Halogen-Free per JEITA ET-7304**	No
Actual Halogen Content***	<1.0%
Copper Mirror Corrosion IPC J-STD-004B	Pass
SIR J-STD-004B***	Pass
Electromigration J-STD-004B***	Pass
Color	Clear
Odor	Mild, rosin
Solder Alloy Compatibility	All common and specialty alloys
IPC J-STD-006 Compliance	Indium Corporation impurity levels conform to or exceed IPC J-STD-006

*J-STD-004 and J-STD-004B vary in the way they measure halogen content. J-STD-004B finds both ionic and non-ionic halogen whereas J-STD-004 will find ionic halogen, but most likely will not find non-ionic halogenated activators. Up to 500ppm combined halogen is considered halogen-free.

** JEITA ET-7304 allows up to 900ppm chloride, 900ppm bromide, and up to 1,500ppm combined bromide and chloride to be considered halogen-free.

*** Data available upon request.



Removing Flux Residue

CW-219 flux residue is non-corrosive; however, some applications require the removal of flux residues for cosmetic, reliability, or secondary operations. The residue can be removed with most solvents and saponifiers. Please contact Indium Corporation for specific recommendations with your chosen residue remover.

From One Engineer To Another®



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Standard Flux Core Sizes, Alloys, and Shelf Life

Alloys	High Flux (%)	Medium Flux (%)	Low Flux (%)	Very Low Flux (%)	Shelf Life (<26°C & <60% RH)
SnPb <80% Pb	2.7–3.2	1.7–2.2	0.8–1.2	—	3 years
Pb-Free Alloys	3.3–3.7	2.7–3.2	1.7–2.2	0.8–1.2	3 years
High Lead >80%	1.7–2.2	1.3–1.7	0.8–1.2	—	1 year

Indium Corporation can produce many of the alloys on its alloys list as cored wire. Alloys containing greater than 20% bismuth, greater than 8% antimony, gold, or greater than 5% silver cannot be produced as cored wire at this time.

Standard Diameters and Packaging

Inches	mm Equivalent	Tolerance	Packaging	Cartons
0.010	0.25	± 0.002"	1/4 lb	(10) 1/4 lb spools
0.015	0.38	± 0.002"	1/4 lb	(10) 1 lb spools
0.020	0.51	± 0.002"	1 lb	(10) 5 lb spools
0.025	0.64	± 0.002"	1 lb	per box
0.032	0.81	± 0.002"	1 lb	—
0.040	1.02	± 0.002"	1 lb, 5 lb	—
0.062	1.57	± 0.002"	1 lb, 5 lb, 20 lb	(2) 20 lb spools
0.120	3.05	± 0.002"	1 lb, 5 lb, 20 lb	per box

Technical Support

Indium Corporation sets the industry standard in providing rapid response, onsite technical support for our customers worldwide. Indium Corporation's team of Technical Support Engineers can provide expertise in all aspects of Materials Science.

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.

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