## PRODUCT DATA SHEET

# **Wave Solder Flux Series #2212**

#### Introduction

Wave Soldering Flux Series #2212 is designed to meet current no-clean and historic Mil-F-14256 flux specifications. These fluxes are particularly effective for soldering large and thick circuit boards or for selective soldering operations where long heat profiles are required. The greater solids content retains activity longer through the soldering cycle and also helps to ensure greater surface insulation resistance and overall reliability.

The residue left by **Wave Soldering Flux Series #2212** is hard, non-hygroscopic, non-tacky, and transparent. While it is not necessary to remove the residue, it can be cleaned from circuit boards and fixtures using a saponifier or common flux residue remover.

#### **Features**

- High solids, no-clean, rosin-containing fluxes
- Meets J-STD-004A Type ROL1 and Mil-F-14256 Type RMA, as well as J-STD-004B
- · Greater heat stability than low solids fluxes
- Designed for soldering thick and massive circuit boards
- · Very heat stable

#### **Application**

**Wave Soldering Flux Series #2212** was originally designed for foam fluxing, but can also be applied by spray. The 15% version is particularly effective when sprayed. When foam fluxing, the following guidelines will help ensure consistent results:

- . Maintain adequate and constant flux level in the fluxing unit
- Use Indium Corporation #16-2212 Rosin Flux Thinner to compensate for evaporation losses
- Keep equipment clean and avoid contamination, particularly oil and water
- Keep the air pressure low and make sure the air lines contain traps to remove water and oils, which may change the foaming properties of the flux

## **Safety Precautions**

All fluxes with low flash points should be handled with utmost care and precaution. Store in a dry, well-ventilated area. Flames, sparks, and direct heating should be avoided.

#### **Packaging**

Wave Soldering Flux Series #2212 is available in 1- and 5-gallon containers and 55-gallon drums.

#### **Physical Properties**

Test	#2212-15	#2212	#2212-35	Thinner #16-2212
J-STD-004A Flux Type	ROL1	ROL1	ROL1	N/A
Nominal Solids Content	15%	25%	35%	0%
Color	Amber	Amber	Amber	Clear
Acid Value mgKOH/g Flux	24	38	50	0
Specific Gravity @15.5°C (60°F) @25.0°C (77°F)	0.833 0.827	0.865 0.859	0.892 0.885	0.795 0.789
Flash Point (°FTCC)	54	54	54	54

All information is for reference only.

Not to be used as incoming product specifications.

#### **Surface Insulation Resistance (SIR)**

J-STD-004A SIR Values					
2212 (85°C/85% RH)	24 Hours	96 Hours	168 Hours		
Control	7.25E+09	5.55E+09	5.05E+09		
Pattern Up	3.48E+09	2.78E+09	2.72E+09		
Pattern Down	6.14E+09	8.17E+09	7.69E+09		

### **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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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.

ASIA +65 6268 8678 • CHINA +86 (0) 512 628 34900 • EUROPE +44 (0) 1908 580400 • USA +1 315 853 4900

# From One Engineer To Another

Contact our engineers: askus@indium.com

Learn more: www.indium.com

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