

## Product Data Sheet

# Wave Solder Flux Series #2212

### Features

- High solids, no-clean, rosin-containing fluxes
- Meet J-STD-004A type ROL1 and QQS-571F type RMA
- Greater heat stability than low solids fluxes
- Designed for soldering thick and massive circuit boards
- Very heat stable
- Leave almost no white residue after soldering

### Introduction

**Wave Soldering Flux Series #2212** is designed to meet current no-clean and historic QQ-S-571F 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 removers.

### Application

**Wave Soldering Flux Series #2212** was originally designed for foam fluxing, but can also be applied by spray. The 10% and 15% versions are 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 #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 Solder Flux Series #2212** is available in 5-gallon containers and 55-gallon drums.

### Physical Properties

Test	#2212-10	#2212-15	#2212	#2212-35	Thinner #16-2212
J-STD-004A Flux Type	ROL1	ROL1	ROL1	ROL1	N/A
Nominal Solids Content	10%	15%	25%	35%	0%
Color	Amber	Amber	Amber	Amber	Clear
Acid Value mgKOH/g flux	16	24	38	50	0
Specific Gravity @15.5°C (60°F) @25°C (77°F)	0.814 0.808	0.833 0.827	0.865 0.859	0.892 0.885	0.795 0.789
Flash Point (°FTCC)	54	54	54	54	54

All information is for reference only. Not to be used as incoming product specifications.

### Surface Insulation Resistance

#2212-10 85°F/85RH	24 hrs	96 hrs	168 hrs
Control	1.07E+10	7.09E+09	4.77E+09
Pattern Up	8.28E+09	5.49E+09	5.08E+09
Pattern Down	1.06E+10	5.62E+09	5.52E+09

All versions of the #2212 have been tested for IPC SIR at 85°F/85RH. The 2212-10 has been placed on the data sheet because, having the lowest solids content, it has the least amount of dielectric rosin material and is expected to show the worst case of all of the #2212 fluxes. Even so, all measurements for the #2212-10 are at least an order of magnitude greater than the minimum 1.0E+08.

### Technical Support

Indium Corporation's internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Material 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.

### Material Safety Data Sheets

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

Form No. 97903 R4

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