Product Data Sheet

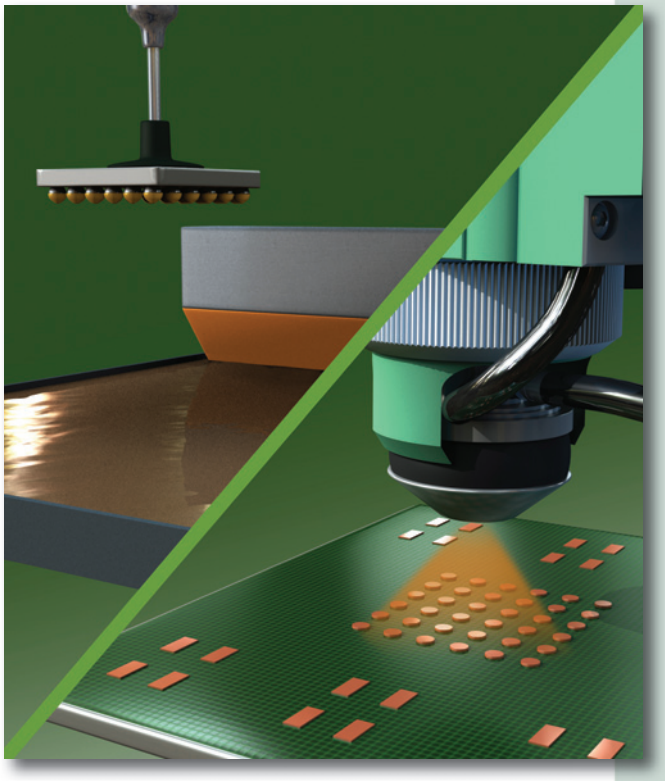
Flip-Chip Flux WS-3555

Features

- Water-soluble
- Halogen-free: no intentionally added halogens
- Suitable for spray or dipping
- Suitable for Sn/Pb, Pb-Free, and high-Pb alloy applications
- Non-corrosive to underbump metallization

Introduction

Flip-Chip Flux WS-3555 is a liquid flux specifically designed to meet process needs for direct chip attach of fine pitch Flip-Chips (<0.4mm). **WS-3555** eliminates compatibility issues with underfills by having a completely water-cleanable residue.



Properties

Property	Value	Test Method
Flux Type Classification:	M0	J-STD-004 (IPC-TM-650)
Typical Viscosity:	95cst	Cannon-Fenske
SIR (ohms, post cleaning):	Pass (>10^9 after 7 days @ 85°C & 85% RH)	IPC-B-24 2.6.3.3
Color:	Deep Amber to Yellow	Visual
Shelf Life:	6 months @ 0 to 25°C	Viscosity change/ microscopic examination

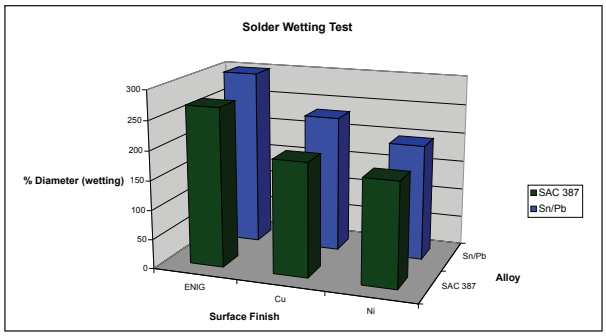
All information is for reference only. Not to be used as incoming product specifications.

Application

Recommended flux amount: 500-1500micrograms/ mm^2, depending on the solder bump alloy, substrate metallizations, and pitch.

For spray applications, the flux storage tank should hold enough flux for one 8-hour shift. Additional flux remaining in tank may expire (pot life <10 hours at room temperature) if left for a prolonged amount of time. Spray equipment should also be cleaned frequently to ensure uniform spray deposition and flux homogeneity.

Comparative Solder Wetting Capability



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Form No. 98502 R0

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Cleaning
The material can be cleaned with DI water, or water with an added cleaner. Ideal conditions for spray-cleaning: 25°C (room temperature) or higher for >1 minute at >60psi.

Packaging
WS-3555 is available in 100g to 500g containers. Other packaging can be provided to meet specific requirements

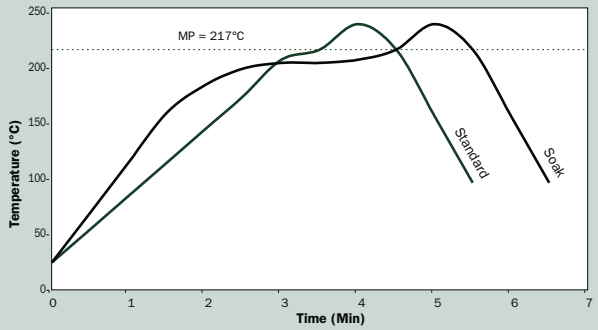
Storage
Storage temperatures should not exceed 25°C for more than 4 days, and should never exceed 30°C. After removing from cold storage, **WS-3555** should be allowed to stand for at least 4 hours at room temperature before using.

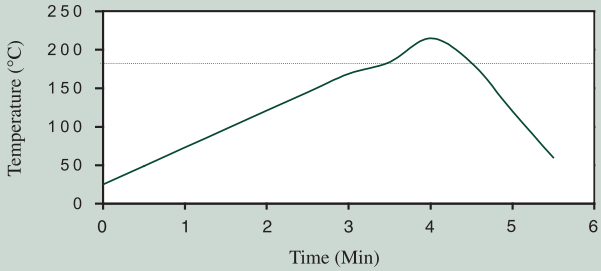
Technical Support
Indium Corporation sets the industry standard in providing rapid response, on-site technical support for our customers worldwide. Indium's team of Technical Support Engineers can provide expertise in all aspects of Materials Science and Semiconductor Packaging process applications.

Material Safety Data Sheets
The MSDS for this product can be found online at http://www.indium.com/techlibrary/msds.php

Reflow

Recommended Profile:





Peak reflow temperature should be <340°C in a nitrogen atmosphere (<100ppm O_2), with a linear ramp up to 30°C above liquidus temperature. These profiles are recommended to the user as starting points, and should be optimized by the user to meet their individual process needs.

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.

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