

Product Data Sheet

Wafer Flux WS3401

Features

- Water-soluble
- No residue after multiple reflow/cleaning cycles
- Uniform bump shape
- Halide-free
- Suitable for Sn/Pb, Pb-Free, and high temperature applications
- Non-corrosive to underbump metallization

Introduction

Wafer Flux WS3401 removes surface oxides from solder bumps on wafers. Working with the natural surface tension of solder, **WS3401** produces uniform hemispherical bumps without solder-robbing or solder-bridging. The rheology is suited to both spin-coat and spray applications.

Properties

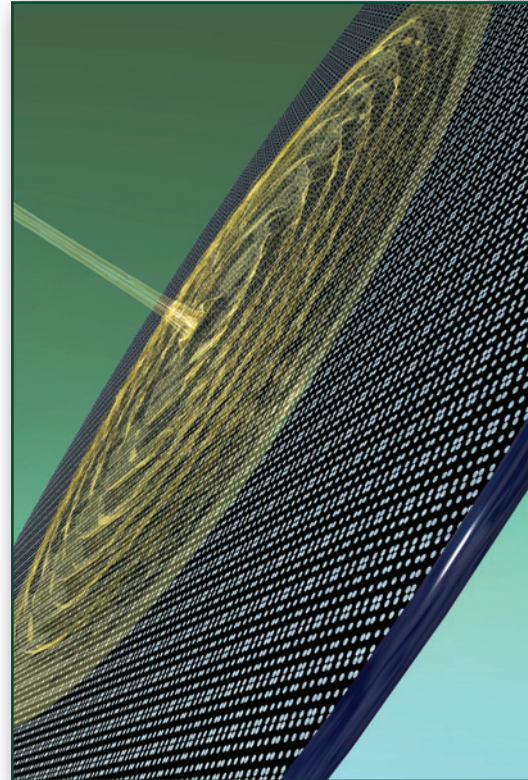
Property	Value	Test Method
Flux Type Classification:	M0	J-STD-004 (IPC-TM-650:
Typical Viscosity:	45cst	Brookfield
SIR (ohms, post cleaning):	Pass (>10 ⁹ after 7 days @ 85°C & 85% RH)	IPC-B-24
Typical Acid Value:	68mg KOH/g	Titration
Color:	Amber to Brown	Visual
Shelf Life:	6 months	0°C to +25°C

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

Application

For spin coating applications, an initial rotation speed should be used to spread this liquid flux uniformly onto the wafer. Next, a high velocity rotation (~2000 rpm) should be used to thin the flux and remove excess flux from the wafer surface.

For spray applications, the equipment flux storage tank should hold enough flux for one 8-hour shift. Additional flux remaining in tank may expire (pot life >8 hours at room temperature) if left for a prolonged amount of time. Spray equipment should also be cleaned frequently to ensure the highest level of purity with this or any other flux.



Cleaning

WS3401 can be cleaned with DI water, or water with added cleaner. Ideal conditions for spray-cleaning: 25°C (room temperature) or higher for >1 minute at >60psi.

Packaging

WS3401 is available in 100g to 1 gallon (3.8 liter) containers. Other packaging can be provided to meet specific requirements.

OVER→

Form No. 98197 R1

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Wafer Flux WS3401

Storage

WS3401 containers should be stored at 0°C to +25°C for maximum shelf life. Storage temperatures should not exceed 25°C for more than 4 days, and should never exceed 30°C. After removing from cold storage, **WS3401** should be allowed to stand for at least 4 hours at room temperature before using.

Technical Support

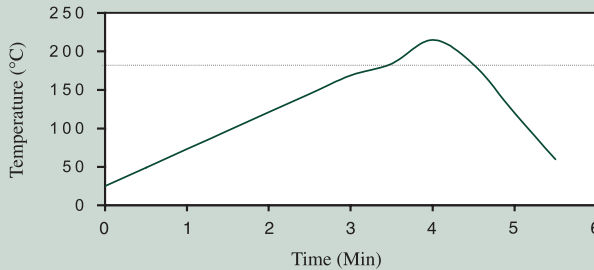
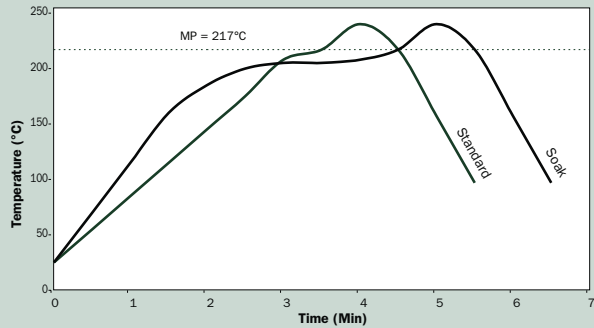
Indium Corporation sets the industry standard in providing rapid response, on-site technical support for our customers worldwide. Indium's team of Technical Support Engineers can provide expertise in all aspects of Materials Science and Semiconductor Packaging process applications.

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 an air or nitrogen atmosphere (<100ppm O₂), with a linear ramp up to 30°C above liquidus temperature. These profiles are recommended 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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