

## PRODUCT DATA SHEET

# PoP Flux 89HF-LV

## Package-on-Package

### Introduction

**PoP Flux 89HF-LV** is a thixotropic no-clean flux designed for package-on-package applications with Pb-free solders. **PoP Flux 89HF-LV** has a unique halogen-free activator system.

### Features

- Application by dipping or dispensing
- Halogen-free (no intentionally-added halides)
- Optimized for Pb-free (SAC alloy) applications
- Excellent solderability with Cu-OSP, AuNi, and immersion Ag finishes
- Air reflow
- Bubble-free packaging

### Properties

	Value	Test Method
Flux Type Classification	ROL0	J-STD-004B (IPC-TM-650: 2.3.32 and 2.3.33)
Typical Viscosity	8.5kcps	Cone and plate viscosity (5 minutes)
SIR (Ohms, after reflow)	Pass (>10 <sup>8</sup> after 7 days @ 85°C and 85% RH)	J-STD-004B (IPC-TM-650: 2.6.3.7 IPC-B-24)
Typical Acid Value	120mg KOH/g	Titration
Typical Tack Strength	125g	J-STD-005 (IPC-TM-650: 2.4.44)
Shelf Life	1 year (0–30°C)	Viscosity change/ microscope examination
Color	Light, opaque	Visual
Working Life	8 hours at room temperature (<30°C, <70% RH)	ICA test method

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

### Application

The volume of flux on the package can be optimized by changing equipment parameters. Key variables include: sphere size, sphere pitch, flux shear speed, and dwell. Viscosity can be optimized per application by appropriate equipment setup.



### Cleaning

**PoP Flux 89HF-LV** is designed for no-clean applications, and can be left in place on the final package. If necessary, flux residues can be removed by using a commercially available flux cleaner. Contact an Indium Corporation Technical Support Engineer for recommendations on flux cleaners.

### Packaging

**PoP Flux 89HF-LV** is available only in air-free 30cc syringes.

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### Storage

For maximum shelf life, **PoP Flux 89HF-LV** syringes and cartridges should be stored tip down. Storage temperatures should never exceed 30°C. After removing from cold storage, **PoP Flux 89HF-LV** should be allowed to stand for at least 4 hours at room temperature before using.

### Technical Support

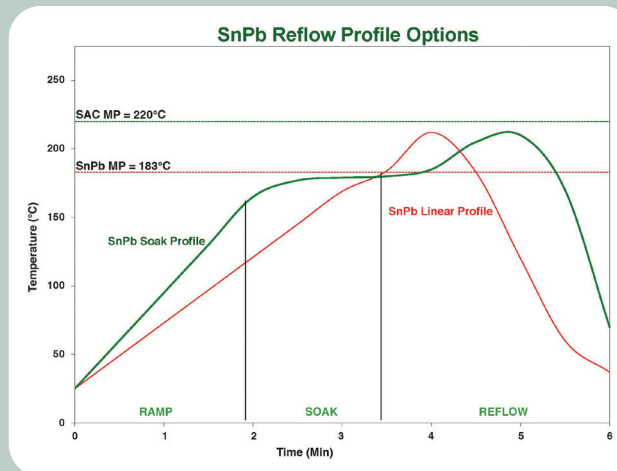
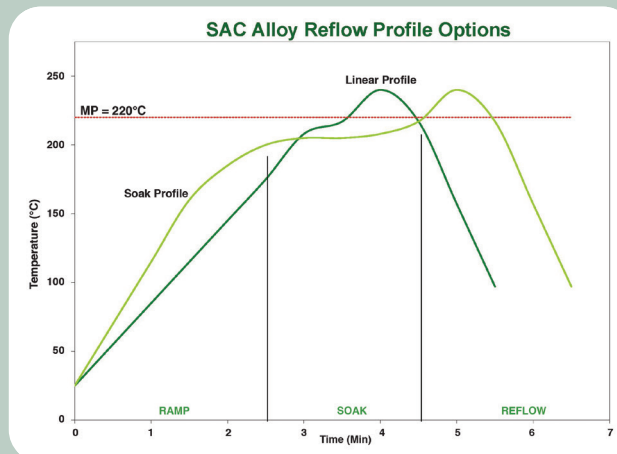
Indium Corporation sets the industry standard in providing rapid response, onsite technical support for our customers worldwide. Indium Corporation's team of Technical Support Engineers can provide expertise in all aspects of Materials Science and semiconductor packaging process applications.

### Safety Data Sheets

Please refer to the SDS document within the product shipment, or contact our local team to receive a copy.

### Reflow

#### Recommended Profile:



Peak reflow temperature should be <math><250^{\circ}\text{C}</math> in an air or nitrogen atmosphere, with a linear ramp up to approximately 30°C above the solidus temperature.

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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.

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