

Product Data Sheet

# Ball Attach Flux NC-585

## Features

- Halogen-free, no-clean residue
- Suitable for pin-grid array and standard ball-grid array applications
- Airless packaging
- Excellent solderability to all common surface metallizations
- Can be used for printing, dipping, pin transfer deposition
- Offers high yields and PGA bumping process
- Suitable for both Pb-Free or Sn/Pb applications

## Introduction

**Ball Attach Flux NC-585** is a low viscosity thixotropic no-clean flux designed for use in ball attachment to substrates (BGA and PGA manufacturing). It is especially useful in applications requiring soldering to surface finishes with tenacious oxides, such as nickel. It can also be used wherever a no-clean ball attach flux is needed, and is suitable for a variety of different deposition methods.

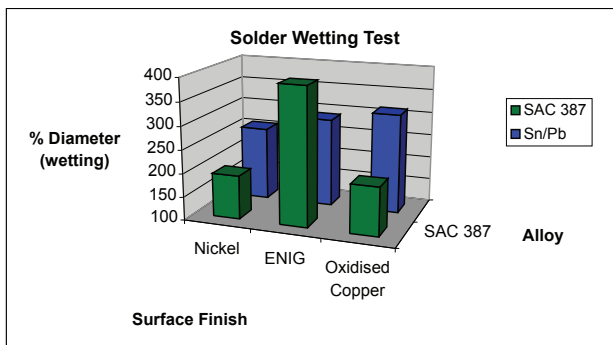
## Properties

	Value	Test Method
<b>Flux Type Classification:</b>	ROLO	J-STD-004 (IPC-TM-650: 2.3.32 and 2.3.33)
<b>Typical Viscosity:</b>	8kcps	Brookfield HB DVII-CP (5rpm)
<b>SIR (ohms):</b>	Pass (>10 <sup>9</sup> after 7 days @ 85°C & 85% RH)	J-STD-004 (IPC-TM-650: 2.6.3.3 IPC-B-24)
<b>Typical Acid Value:</b>	80mg KOH/g	Titration
<b>Typical Tack Strength:</b>	170g	J-STD-005 (IPC-TM-650: 2.4.44)
<b>Shelf Life:</b>	6 months (0°C to ≤30°C)	Viscosity change/microscope examination
<b>Post Reflow Flux Residue</b>	45%	ICA Test Method

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

## Application

Pin transfer volumes can be optimized by changing equipment parameters. Key variables of pin transfer include pin shape, pin diameter, shear speed, dwell and depth of immersion.



## Cleaning

**NC-585** is designed for no-clean applications. If necessary, the flux can be removed by using a commercially available flux cleaner. Please contact an Indium Corporation Technical Service Engineer for recommendations of cleaners to suit your process needs.

## Packaging

**NC-585** is available in air-less (bubble-free) 30cc syringes. Other packaging can be provided to meet specific requirements.



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## Ball Attach Flux NC-585

### Storage

**NC-585** syringes and cartridges should be stored tip down at 0°C to ≤30°C for maximum shelf life. After removing from cold storage, **NC-585** should be allowed to stand for a minimum of 4 hours at room temperature before using.

### Technical Support

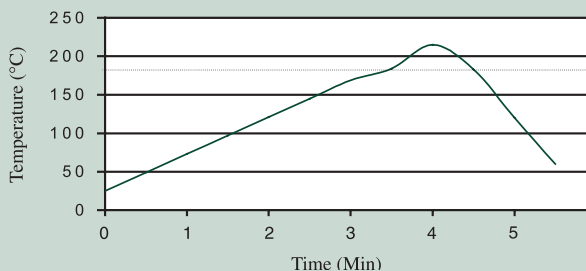
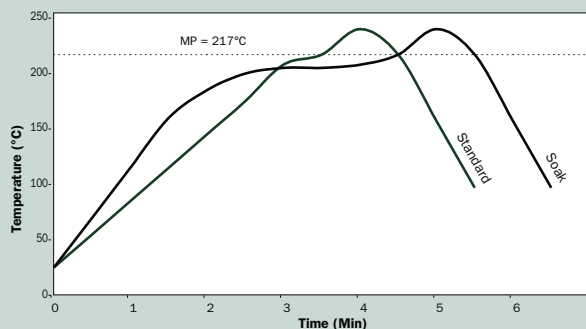
Indium Corporation sets the industry standard in providing rapid response, on-site technical support for our customers worldwide. Indium's team of Technical Support Engineers can provide expertise in all aspects of Materials Science and Semiconductor Packaging process applications.

### 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 <260°C in an air or nitrogen atmosphere (<500ppm O<sub>2</sub>), 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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