

PRODUCT DATA SHEET

1076-30 VOC-Free Wave Solder Flux

Introduction

1076-30 Wave Solder Flux is a rosin/resin-free flux specifically developed for wave soldering, surface mount, mixed technology, and through-hole electronic assemblies.

1076-30 is water-based and non-flammable, eliminating special storage requirements, and reducing VOC emissions dramatically. It is designed to produce better solderability on difficult-to-solder assemblies.

Features

- VOC-free
- Excellent surface wetting
- Eliminates cleaning
- Increased activity

Process Recommendations

1076-30 is best applied by ultrasonic spray. The optimum preheat temperature for most circuit board assemblies is 93–115°C (200–240°F). The conveyor speed and preheat should be adjusted to ensure complete water removal before contact with the solder wave.

A thin uniform flux deposition of 500–1,000 micrograms per square inch of flux solids should be applied as a starting point.

Because **1076-30** is water-based, it does not require frequent acid value monitoring. If thinning is required, the addition of deionized water is all that is necessary.

1076-30 may freeze if exposed to temperatures below 0°C (32°F). If the flux becomes frozen, bring to room temperature until thawed and agitate. The material is not affected by freezing.

Physical Properties

| Test | Result |
|--------------------------------------------------|----------------|
| Color | Clean |
| Specific Gravity: @25°C (77°F) @15.5°C (60°F) | 1.014 1.014 |
| Acid Value | 30 |
| Solids Content | 2.85 |
| Flash Point (°F TCC) | None |
| J-STD-004 Flux Type | ORLO |

All information is for reference only.

Not to be used as incoming product specifications.

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. All Indium Corporation's products and solutions are designed to be commercially available unless specifically stated otherwise.

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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Packaging

- 5 gallon containers
- 55 gallon drums

Safety

1076-30 is a non-flammable material. Standard precautions should be observed when handling this material.

Telcordia Surface Insulation Resistance Test

| Test Pattern | Board | Initial Reading | Final Reading |
|-------------------|--------------|-----------------------|-----------------------|
| Standard Bellcore | Control | 6.08×10^{13} | 4.42×10^{13} |
| | Pattern Up | 1.56×10^{14} | 1.75×10^{14} |
| | Pattern Down | 7.81×10^{13} | 6.07×10^{13} |

All readings expressed in Ohms.

IPC Surface Insulation Resistance Test

| Test Pattern | Board | 24 Hours | 96 Hours | 168 Hours |
|---------------------------------------------------|--------------|-----------------------|-----------------------|-----------------------|
| IPC B25A 0.0157" wide lines 0.0197" spacing | Control | 1.01×10^{11} | 1.35×10^{10} | 2.42×10^{11} |
| | Pattern Up | 1.55×10^{11} | 2.55×10^{11} | 8.41×10^{10} |
| | Pattern Down | 2.44×10^8 | 4.96×10^8 | 6.40×10^8 |

All readings expressed in Ohms.

Technical Support

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

Safety Data Sheets

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



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