

## PRODUCT DATA SHEET

# 3577-TF No-Clean Wave Solder Flux

### Introduction

**3577-TF Wave Solder Flux** is a low-solids flux especially formulated to eliminate post-cleaning operations. This flux contains a small amount of resin, which enhances the wetting properties.

**3577-TF** is activated by a multi-component, synergetic fluxing system, which improves solderability. Any remaining residues after soldering are considered non-corrosive and do not interfere with ATE testing.

### Features

- Eliminates the need for cleaning
- Excellent solderability on standard board finishes
- Reduces solder balling
- Compatible with conformal coatings without cleaning
- Meets Bellcore specification TR-NWT-000078
- Meets IPC J-STD-004 specification

### Process Recommendations

**3577-TF** is best applied by spray. Typical preheat temperatures are 93–104°C (200–220°F) topside board temperature at conveyor speeds of 4–6ft/min.

**3577-TF** can be used very effectively in single or dual wave soldering systems. Assemblies with surface mount components containing lead or mixed-technology can be soldered successfully.

**3577-TF** can be used successfully with all organic solderability protective (OSP) coatings.

### Physical Properties

| Test                                               | Result         |                |
|----------------------------------------------------|----------------|----------------|
|                                                    | 3577-TF        | 16-3000        |
| Color                                              | Straw          | Clear          |
| Specific Gravity<br>@25°C (77°F)<br>@15.5°C (60°F) | 0.793<br>0.800 | 0.783<br>0.790 |
| Acid Value                                         | 17             | None           |
| Solids Content                                     | 4.0            | 0              |
| Flash Point (°F TCC)                               | 54             | 54             |
| Flux Type J-STD-004                                | ORLO           | N/A            |

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

### Packaging

- 5-gallon containers
- 55-gallon drums

### Bellcore Surface Insulation Resistance Test

| Test Pattern | Board Reading | Final*                  |
|--------------|---------------|-------------------------|
| Standard     | Control       | 3.66 x 10 <sup>10</sup> |
| Bellcore     | Pattern up    | 5.53 x 10 <sup>10</sup> |
|              | Pattern down  | 1.68 x 10 <sup>12</sup> |

*\*All readings expressed in Ohms.*

### Bellcore Electromigration Insulation Resistance Test

| Test Pattern | Boards       | Initial Reading        | Final*                 |
|--------------|--------------|------------------------|------------------------|
| IPC B25      | Control      | 3.10 x 10 <sup>9</sup> | 2.94 x 10 <sup>9</sup> |
|              | Pattern up   | 6.18 x 10 <sup>9</sup> | 4.44 x 10 <sup>9</sup> |
|              | Pattern down | 5.46 x 10 <sup>9</sup> | 4.44 x 10 <sup>9</sup> |

*\*All readings expressed in Ohms.*

### IPC Surface Insulation

| Test Pattern | Boards       | 24 Hours*               | 96 Hours*               | 168 Hours*              |
|--------------|--------------|-------------------------|-------------------------|-------------------------|
| IPC B24      | Control      | 1.21 x 10 <sup>10</sup> | 1.09 x 10 <sup>10</sup> | 1.09 x 10 <sup>10</sup> |
|              | Pattern up   | 8.21 x 10 <sup>9</sup>  | 9.43 x 10 <sup>9</sup>  | 9.40 x 10 <sup>9</sup>  |
|              | Pattern down | 1.50 x 10 <sup>10</sup> | 1.16 x 10 <sup>10</sup> | 1.12 x 10 <sup>10</sup> |

*\*All readings expressed in Ohms.*

From One Engineer To Another®



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### Safety

Flammable liquids should always be stored in a dry, well-ventilated environment away from open flames, sparks, or direct heat.

### 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>

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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