

PRODUCT DATA SHEET

1075-EXR 30 VOC-Free

Wave Solder Flux

Introduction

1075-EXR 30 VOC-Free is a non-halide, synthetic resin flux specifically developed for wave soldering of surface mount, mixed technology, and through-hole electronic assemblies.

1075-EXR 30 VOC-Free is a water-based, non-flammable formulation that eliminates special storage requirements, and dramatically reduces VOC emissions. **1075-EXR 30** is formulated to reduce solder balling and produce better solderability on difficult-to-solder assemblies.

Features

- VOC-free formulation
- Excellent wetting
- Eliminates cleaning
- Reduces solder balling

Process Recommendations

1075-EXR 30 VOC-Free can be applied by spray or wave. Topside board temperatures for most circuit board assemblies can range from 93–115°C (200–240°F) depending on equipment, board size, board complexity, and conveyor speed (typically 4–6'/minute). Preheat should be adjusted to ensure complete water removal before contact with the solder wave. Convection preheat is strongly recommended for optimum results.

Because **1075-EXR 30 VOC-Free** 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.

1075-EXR 30 VOC-Free 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 | Clear |
| Specific Gravity @ 25°C (77°F) @ 15.5°C (60°F) | 1.015 1.015 |
| Acid Value | 30.0 |
| Solids Content | 4.5 |
| Flash Point | None |
| Silver Chromate Paper Test | Pass |
| Copper Mirror Test | Pass |
| Freeze/Thaw Test | Pass |
| J-STD-004 Flux Type | ORLO |

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

Packaging

- 5 gallon containers
- 55 gallon drums

Safety

1075-EXR 30 VOC-Free is non-flammable. Standard precautions should be observed when handling this material.

Technical Support

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

From One Engineer To Another®



1075-EXR 30 VOC-Free Wave Solder Flux

Telcordia Surface Insulation Resistance Test

| Test Pattern | Boards | Initial Reading* | Final Reading* |
|--|--------------|-----------------------|-----------------------|
| Standard Bellcore 0.0125" Wide Lines 0.0125" Spacing | Control | 5.14×10^{11} | 6.11×10^{11} |
| | Pattern up | 4.95×10^{12} | 5.99×10^{12} |
| | Pattern down | 2.58×10^{11} | 2.56×10^{11} |

*All readings expressed in Ohms.

Telcordia Electromigration Resistance Test

| Test Pattern | Boards | Initial Reading* | Final Reading* |
|--|--------------|--------------------|--------------------|
| IPC-B-25A 0.0125" Wide Lines 0.0125" Spacing | Control | 3.49×10^9 | 4.32×10^9 |
| | Pattern up | 3.21×10^9 | 5.99×10^9 |
| | Pattern down | 1.01×10^9 | 2.43×10^9 |

*All readings expressed in Ohms.

IPC Surface Insulation Resistance Test

| Test Pattern | Boards | 24 Hours* | 96 Hours* | 168 Hours* |
|---|--------------|-----------------------|-----------------------|-----------------------|
| IPC B25A 0.0157" Wide Lines 0.0197" Spacing | Control | 2.23×10^{11} | 2.19×10^{10} | 2.30×10^{11} |
| | Pattern up | 1.63×10^{11} | 2.51×10^{11} | 9.89×10^{10} |
| | Pattern down | 7.39×10^8 | 1.03×10^9 | 1.94×10^9 |

*All readings expressed in Ohms.

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