PRODUCT DATA SHEET

1075-EXR 44

VOC-Free Wave Solder Flux

Introduction

1075-EXR 44 Wave Solder Flux is specifically developed for Pb-free and Sn/Pb wave soldering of surface mount, mixed-technology, and through-hole electronic assemblies.

1075-EXR 44 is water-based and non-flammable, eliminating special storage requirements and reducing VOC emissions dramatically. **1075-EXR 44** is formulated for use with Pb-free alloys to reduce solder balling and produce better solderability on difficult-to-solder assemblies.

Features

- VOC-Free
- Excellent surface wetting
- Eliminates cleaning
- Increased activity
- Reduces solder balling
- Use with Pb-free alloys and Sn/Pb assembly processes

Process Recommendations

1075-EXR 44 should be applied by ultrasonic spray for best results. Topside board temperatures for most circuit board assemblies are 220–260°F (105–127°C) depending on equipment, board size, board complexity, and conveyor speed (typically 4–6' per minute). Preheat should be adjusted to ensure complete water removal before contact with the solder wave. Convection preheat is strongly recommended for optimum results.

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

Because **1075-EXR 44** 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 44 may freeze if exposed to temperatures below 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)	 1.019 1.019
Acid Value	40.0
Solids Content	6.23
Flash Point	None
J-STD-004 Flux Type	ORL0

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

Packaging

- 5 gallon containers
- 55 gallon drums

Shelf Life

The shelf life for this product is 18 months in an unopened container stored at less than 90°F/32°C. Shelf life for an opened container will vary depending on storage conditions, including open time, temperature, and humidity.

Safety

1075-EXR-44 is a non-flammable material. 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 preforms, wire, ribbon, and paste. Indium Corporation's Technical Support Engineers provide rapid response to all technical inquiries.

Safety Data Sheet

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

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Telcordia GR-78 Surface Insulation Resistance Test

Test Pattern	Boards	Initial Reading*	Final Reading*
IPC-B-25A	Control	8.32×10^{11}	6.76×10^{11}
	Pattern Up	4.79×10^{10}	7.41×10^{10}
	Pattern Down	1.43×10^{11}	2.17×10^{11}

**All readings expressed in Ohms*

IPC Surface Insulation Resistance Test

Test Pattern	Boards	24 Hours	96 Hours	168 Hours
IPC-B-24	Control	1.09×10^{10}	6.62×10^{9}	5.87×10^{9}
	Pattern Up	1.90×10^{8}	2.40×10^{8}	4.09×10^{8}
	Pattern Down	2.90×10^{8}	2.90×10^{8}	4.13×10^{8}

IPC ECM/Telcordia EM Resistance Test

Test Pattern	Boards	Initial Reading*	Final Reading*
IPC-B-25A	Control	5.32×10^{10}	2.23×10^{11}
	Pattern Up	2.18×10^{9}	1.19×10^{11}
	Pattern Down	1.59×10^{10}	9.47×10^{9}

**All readings expressed in Ohms*

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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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