

Product Data Sheet

Wave Solder Flux 1075-EXR 44

Features

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

Introduction

WAVE SOLDER FLUX 1075-EXR 44 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.

Process Recommendations

1075-EXR 44 should be applied by ultrasonic spray for best results. Topside board temperatures for most circuit board assemblies are 220°F-260°F (105°C-127°C) depending on equipment, board size, board complexity, and conveyor speed (typically 4-6'/min). 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)	1.019
@15.5°C (60°F)	1.019
Acid Value	40.0
Solids Content	6.23
Flash Point	None
J-STD-004 Flux Type	ORLO

Packaging

- 5 gallon containers
- 55 gallon drums

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 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.

Material Safety Data Sheet

The MSDS for this product can be found online at <http://www.indium.com/techlibrary/msds.php>

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S O L D E R

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ISO 9001
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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 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

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

All readings expressed in ohms

This product data sheet is provided for general information only. It is not intended, described which are sold subject exclusively to written warranties and limitations and shall not be construed, to warrant or guarantee the performance of the products thereon included in product packaging and invoices.

S O L D E R

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