PRODUCT DATA SHEET

1075-EX VOC-Free

Wave Solder Flux

Introduction

1075-EX VOC-Free is a resin/rosin-free flux specifically developed for wave soldering surface mount, mixed technology, and through-hole electronic assemblies.

1075-EX VOC-Free is a water-based, non-flammable formulation, which eliminates special storage requirements and reduces VOC emissions dramatically.

Features

- For SnPb and Pb-free alloys
- VOC-free formulation
- Excellent surface wetting
- Eliminates cleaning
- Increased activity

Physical Properties

Test	Result
Color	Clear
Specific Gravity @ 25°C (77°C) @ 15.5°C (60°C)	 1.011 1.011
Acid Value	20.0
Solids Content	2.40
Flash Point (°F TCC)	None
J-STD-004 Flux Type	ORL0

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

Bellcore Surface Insulation Resistance Test

Test Pattern	Boards	Initial Reading*	Final Reading*
IPC B25A	Control	1.58×10^{13}	1.37×10^{13}
	Pattern Up	3.74×10^{10}	1.36×10^{11}
	Pattern Down	2.11×10^{10}	1.99×10^{11}

**All readings expressed in Ohms*

IPC Surface Insulation Resistance Test

Test Pattern	Boards	24 Hours*	96 Hours*	168 Hours*
IPC B25A	Control	1.01×10^{11}	3.05×10^{10}	3.12×10^{11}
	Pattern Up	2.69×10^{10}	4.73×10^{9}	7.57×10^{9}
	Pattern Down	2.26×10^{10}	4.10×10^{9}	6.98×10^{10}

**All readings expressed in Ohms*

Process Recommendations

1075-EX VOC-Free should be applied by ultrasonic spray for best results. The optimum preheat temperature for most circuit board assemblies is 93–115°C (200–240°F). A flux deposition rate of 500–1,000 micrograms per square inch of flux solids (77.5–155 micrograms/cm^2) should be applied as a starting point. The conveyor speed and preheat should be adjusted to ensure complete water removal before contact with the solder wave.

Because **1075-EX 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-EX VOC-Free** may freeze if exposed to temperatures below 0°C (32°F). If the flux becomes frozen, bring to room temperature and agitate. The material is not affected by freezing.

1075-EX Process Window

Alloy	Flux Deposition Rate µg/in^2 solids	Preheat Temp		Preheat Time (sec)	Contact Time (sec)	Pot Temp (°C)
		Top (°C)	Bottom (°C)			
Pb-Free	500–1,000	93–115	100–120	50–75	3–5	260–270
SnPb	500–1,000	93–115	100–120	50–75	2–3	245–260

Packaging

- 5 gallon containers
- 55 gallon drums

Safety

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

From One Engineer To Another®

PRODUCT DATA SHEET

1075-EX VOC-Free Wave Solder Flux

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 Sheet

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

Contact our engineers: askus@indium.com
Learn more: www.indium.com

ISO 9001 REGISTERED

ASIA +65 6268 8678 • CHINA +86 (0) 512 628 34900 • EUROPE +44 (0) 1908 580400 • USA +1 315 853 4900

INDIUM CORPORATION®