

# PRODUCT DATA SHEET

# LV1000

## Flux Coating

### Introduction

With the increased demand for flux coatings that have lower voiding, Indium Corporation has developed the next generation of flux coatings. **LV1000 Flux Coating** provides low-voiding, especially in situations where the component footprint will not allow for proper outgassing of volatilized flux.

The glossy, even coating of the flux is durable so it can be used as a drop-in replacement in an automated assembly process.

**LV1000** is versatile, allowing for the coating of unique geometries and sizes.

**LV1000** is halide-free, meeting the ROL0 requirement without sacrificing strength. The coating tolerances are well-controlled—down to 0.5% by weight—to ensure there is no more flux than required by your process.

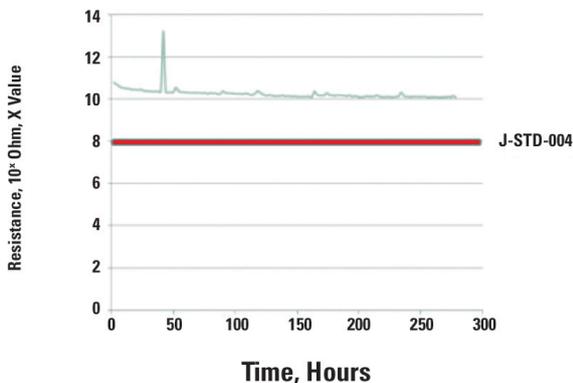
### Features

- Low-voiding
- Meets stringent co-planarity specs
- Halide-free; meets ROL0 requirements
- Coatings are uniform and level
- Durability for pick and place equipment
- Passes Telecordia (Bellcore) testing in activated and un-activated states

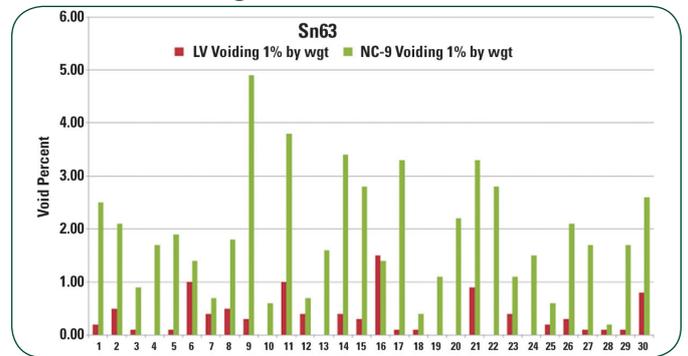
### Performance

Our NC-9 flux coating has been an industry leader for years, making it an ideal performance benchmark for the **LV1000**.

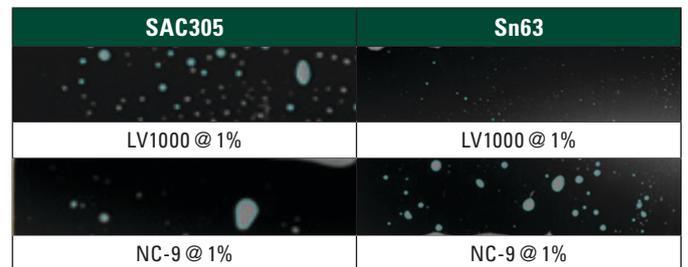
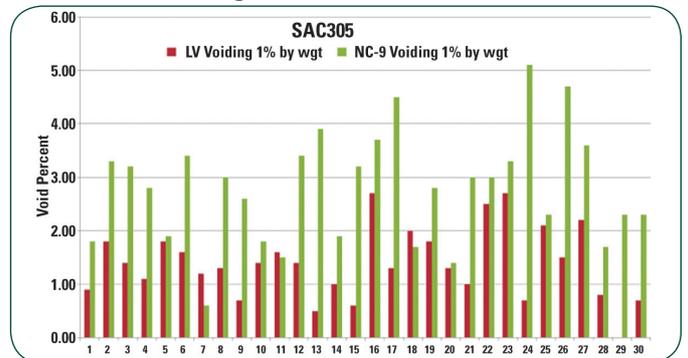
While NC-9 will still be part of our offering for many applications, **LV1000** is specifically designed to reduce voiding under sensitive components where a good thermal path and structural integrity are important to performance and reliability.



### LV Flux Coating vs. NC-9 in Sn63



### LV Flux Coating vs. NC-9 in SAC305



From One Engineer To Another®



# PRODUCT DATA SHEET

# LV1000 Flux Coating

## IPC-TM-650 2.6.3.3 - SIR\*

Board Identifier	Sample	Comb	Ambient Prior to Conditioning	24 Hours at Conditions	96 Hours at Conditions	Ambient After Conditioning
LV1000 Activated	1	A	12.71	13.55	12.43	12.93
		B	12.73	12.90	13.11	14.14
		C	12.60	12.11	12.81	13.75
		D	12.65	12.80	11.72	14.23
	2	A	12.47	13.08	12.48	14.25
		B	12.46	11.09	12.53	14.30
		C	12.51	11.29	12.66	14.06
		D	12.59	12.16	12.69	14.00
	3	A	12.39	12.80	12.51	14.18
		B	12.48	13.22	12.63	14.24
		C	12.46	12.21	12.57	14.46
		D	12.66	11.26	13.15	14.36
4	A	12.50	12.80	12.50	14.19	
	B	12.60	14.25	12.68	14.83	
	C	12.59	10.73	12.67	14.23	
	D	12.49	12.53	12.62	13.77	
LV1000 Un-Activated	1	A	10.96	12.42	11.47	13.24
		B	10.96	11.09	11.35	12.98
		C	10.83	10.75	11.26	12.91
		D	11.11	11.24	11.56	13.03
	2	A	11.12	11.78	11.45	12.95
		B	11.29	11.17	11.27	12.74
		C	11.10	10.78	11.17	12.84
		D	11.49	11.29	11.52	12.98
	3	A	12.89	12.82	11.61	12.90
		B	12.71	11.43	11.39	12.76
		C	12.77	11.18	11.31	12.71
		D	13.30	11.67	11.60	13.19
Controls	1	A	12.42	12.24	12.75	13.37
		B	12.56	12.80	13.38	14.47
		C	11.81	12.88	12.81	15.05
		D	12.52	12.85	13.61	13.63
	2	A	12.33	11.57	13.28	13.31
		B	12.58	11.06	11.38	13.57
		C	12.75	10.96	11.22	13.77
		D	12.44	13.77	13.00	14.74
	3	A	12.38	11.04	11.64	14.30
		B	12.57	12.89	14.01	15.44
		C	12.57	12.87	12.98	14.06
		D	12.76	13.04	12.88	13.39

## GR-78 CORE ECM Testing\*

Board Identifier	Sample	Comb	Ambient Prior to Conditioning	96 Hours at Conditions	500 Hours at Conditions	Ambient After Conditioning
LV1000 Activated	1	1-2	13.14	11.87	11.75	12.86
		2-3	13.40	12.79	11.51	12.86
		3-4	12.53	12.13	11.53	12.70
		4-5	12.54	12.08	11.89	12.95
	2	1-2	11.57	12.58	12.07	13.46
		2-3	12.18	12.26	11.69	13.29
		3-4	11.72	12.37	11.68	13.07
		4-5	12.89	12.18	12.15	13.11
	3	1-2	12.28	11.97	12.16	12.08
		2-3	13.23	12.16	11.74	13.19
		3-4	14.19	12.38	11.72	13.16
		4-5	12.59	11.96	12.10	13.41
4	1-2	14.32	12.01	12.04	13.33	
	2-3	12.95	12.26	11.67	13.17	
	3-4	13.18	12.24	11.58	13.13	
	4-5	13.53	11.78	11.88	13.36	
LV1000 Un-Activated	5	1-2	11.91	10.84	10.83	13.49
		2-3	13.31	10.93	11.20	13.60
		3-4	12.74	9.37	10.88	13.53
		4-5	12.84	11.02	10.99	13.61
	6	1-2	11.46	10.93	10.98	14.32
		2-3	11.70	9.42	10.81	12.52
		3-4	11.67	9.40	10.75	13.42
		4-5	11.91	11.52	11.19	13.39
	7	1-2	12.65	9.39	11.61	13.99
		2-3	12.77	9.60	10.88	13.37
		3-4	13.05	9.56	10.82	13.41
		4-5	13.41	11.05	11.20	13.63
Controls	8	1-2	13.16	12.05	11.43	13.62
		2-3	12.99	11.28	11.08	13.40
		3-4	14.37	11.29	11.05	13.39
		4-5	13.46	12.26	11.42	13.63
	9	1-2	13.90	12.10	11.66	13.63
		2-3	13.42	11.47	11.23	13.44
		3-4	13.46	11.52	11.17	13.43
		4-5	13.41	12.01	11.62	13.65
	10	1-2	12.99	12.14	11.64	13.63
		2-3	13.32	11.51	11.27	13.46
		3-4	13.98	11.51	11.23	13.44
		4-5	13.90	12.42	11.52	13.64

## Packaging

This flux coating will work with all pack methods, including tape & reel, tray pack, or loose pack.

## Technical Support

Indium Corporation sets the industry standard in providing rapid response, onsite technical support for our customers worldwide. Indium Corporation's team of Technical Support Engineers can provide expertise in all aspects of Materials Science and Semiconductor Packaging process applications.

## Safety Data Sheets

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

\*Testing performed by Robisan Laboratory, Inc., 6502 E. 21<sup>st</sup> Street, Indianapolis, IN 46219

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