

## PRODUCT DATA SHEET

# OnSpec<sup>®</sup> Solar-Grade GS-5454

## Resin-Based Tabbing Flux

### Introduction

**Tabbing Flux GS-5454** is a no-clean flux specifically developed for solar tabbing/stringing applications. It is formulated to provide a wide process window and can be used with Sn/Cu, Sn/Ag/Cu, and Sn/Pb alloys.

### Features

- Formulated for IR or hot bar reflow
- Excellent bond strength
- Superior wetting

### Process Recommendations

**Tabbing Flux GS-5454** can be applied via dipping tank. It should not require thinning; however, if thinning is required, use Indium Corporation's 16-3000 flux thinner.

### Physical Properties

Test	Result	
	GS-5454	16-3000
Color	Straw	Clear
Specific Gravity @ 25°C (77°F) @ 15.5°C (60°F)	0.800 0.806	0.783 0.790
Acid Value	25	None
Solids Content	4.31	0
Flash Point (°F TCC)	54	54
Flux Type Classification (J-STD-004)	ORLO	N/A

All information is for reference only.

Not to be used as incoming product specifications.

### Packaging

- 1 pint evaluation size container: IPN #FLUXGS5454BFWV-84273-1PT
- 1 gallon container
- 5 gallon container
- 5 liter container
- Other packaging available upon request

This product data sheet is provided for general information only. It is not intended, and shall not be construed, to warrant or guarantee the performance of the products described which are sold subject exclusively to written warranties and limitations thereon included in product packaging and invoices. All Indium Corporation's products and solutions are designed to be commercially available unless specifically stated otherwise.

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.

## From One Engineer To Another<sup>®</sup>

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### Safety

Any fluxes with low flash points should be handled with caution. Store in a dry, well ventilated area away from sparks, flames, and direct heat. Consult the Safety Data Sheet for full details.

### IPC Surface Insulation Resistance Test

Test Pattern	Board	24 Hours	96 Hours	168 Hours
IPC B25A	Control	1.74 x 10 <sup>10</sup>	5.60 x 10 <sup>9</sup>	3.76 x 10 <sup>9</sup>
	Pattern Up	1.18 x 10 <sup>10</sup>	7.10 x 10 <sup>9</sup>	5.55 x 10 <sup>9</sup>
	Pattern Down	8.50 x 10 <sup>9</sup>	3.49 x 10 <sup>9</sup>	3.21 x 10 <sup>9</sup>

All readings expressed in Ohms.

### Bellcore Surface Insulation Resistance Test

Test Pattern	Board	Initial Reading	Final Reading
Standard Bellcore	Control	2.68 x 10 <sup>13</sup>	1.88 x 10 <sup>13</sup>
	Pattern Up	3.18 x 10 <sup>12</sup>	3.34 x 10 <sup>12</sup>
	Pattern Down	3.27 x 10 <sup>13</sup>	3.48 x 10 <sup>13</sup>

All readings expressed in Ohms.

### Bellcore Electromigration Insulation Resistance Test

Test Pattern	Board	Initial Reading	Final Reading
IPC B25A	Control	6.51 x 10 <sup>11</sup>	3.01 x 10 <sup>11</sup>
	Pattern Up	1.18 x 10 <sup>10</sup>	8.58 x 10 <sup>9</sup>
	Pattern Down	1.14 x 10 <sup>10</sup>	7.39 x 10 <sup>9</sup>

All readings expressed in Ohms.

### 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.

### Safety Data Sheets

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



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