Flux Coatings for Solder Preforms

Introduction

Preforms are precise shapes of solder that are manufactured to tight tolerances to give repeatable, accurate solder amounts that are efficiently introduced into the manufacturing process.

Adding the flux directly onto the solder allows for an exact, correct amount of flux to properly complete the soldering process. It also puts the flux between the solder and the substrate, where it is the most effective.

Flux coatings for preforms are available in no-clean and solvent cleanable chemistries, with a variety of activity levels to suit your substrate metallizations.

Indium Corporation’s unique coating process can control the amount of flux to tight tolerances. Flux coatings are measured and applied by weight percentage. The standard weight percentage ranges from 1–3% ± 0.5%. The flux coating is applied after the dimensions of the preform have been verified.

Features

- Eliminates the need for a separate fluxing step
- Eliminates excessive flux residue
- Delivers flux precisely where it is needed
- Provides a uniform amount of flux every time

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.

Flux Coatings

<table>
<thead>
<tr>
<th>Flux Coating</th>
<th>IPC Classification</th>
<th>Substrate Finishes</th>
<th>J-STD-004 SIR &amp; ECM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LV1000</td>
<td>ROL0</td>
<td>Au, Ag, Pd, Pt, Cu, Ni, HASL, ENIG, Sn</td>
<td>Pass</td>
</tr>
<tr>
<td>NC-7</td>
<td>ROL0</td>
<td>Au, Ag, Pd, Pt, Cu, HASL, ENIG, Sn</td>
<td>Pass</td>
</tr>
<tr>
<td>NC-9</td>
<td>ROL1</td>
<td>Au, Ag, Pd, Pt, Cu, HASL, ENIG, Sn</td>
<td>Pass</td>
</tr>
<tr>
<td>R</td>
<td>ROL0</td>
<td>Au, Ag, Pd, Pt, Cu, HASL, ENIG, Sn</td>
<td>Pass</td>
</tr>
<tr>
<td>RMA</td>
<td>ROL1</td>
<td>Au, Ag, Pd, Pt, Cu, HASL, ENIG, Sn</td>
<td>Pass</td>
</tr>
<tr>
<td>RA-2</td>
<td>ROL1</td>
<td>Cu, Ni, Cu Alloys (Brass, Bronze)</td>
<td>Cleaning recommended</td>
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<tr>
<td>RSA</td>
<td>ROM1</td>
<td>Cu, Ni, Cu Alloys (Brass, Bronze)</td>
<td>Cleaning recommended</td>
</tr>
<tr>
<td>RA-42</td>
<td>ROL1</td>
<td>Cu, Ni, Cu Alloys (Brass, Bronze), Alloy 42</td>
<td>Cleaning recommended</td>
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</tbody>
</table>

*See Flux and Solder Compatibility application note for details on fluxes and their recommended solder alloys.

Additional Information

Please visit www.indium.com/technical-documents/ for more information on solder preforms and flux coatings, or visit our blogs at www.indium.com/blog

Product Data Sheets

- LV1000 Flux Coating
- No-Clean Fluxes for Coating Solder Preforms
- Solder Preforms

Application Notes

- Fluxless Soldering
- Flux and Solder Compatibility
- Storage and Handling of Flux-Coated Preforms in Tape & Reel

Safety Data Sheets

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

**From One Engineer To Another**

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