PRODUCT DATA SHEET

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 0.5–3.0% ± 0.25%. 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

Flux	Description	IPC Classification	Substrate Finishes
LV299	Excellent wetting and low-voiding for the semiconductor industry and other crucial applications with zero failure tolerance.	ROL1	Au, Ag, Pd, Pt, Cu, Ni, HASL, ENIG, Sn
LV2K	Low-voiding and halogen-free flux. Premiere solution for many applications in the RF and connectors markets, as well as the semiconductor industry.	ROL0	Au, Ag, Pd, Pt, Cu, HASL, ENIG, Sn
NC-7	Demonstrated excellence in medical applications where failure is not an option. Halogen-free and works with complex shapes.	ROL0	Au, Ag, Pd, Pt, Cu, HASL, ENIG, Sn
NC-299	Low activity flux for complex shapes used in automotive and medical industries. An excellent solution for Class 3 Electronic Products—high performance amid harsh environment.	ROL1	Au, Ag, Pd, Pt, Cu, Ni, HASL, ENIG, Sn
RA-2	Superior wetting on complex shapes. Proven efficiency and performance in mass production promotes its use in the connectors market.	ROL1	Au, Ag, Pd, Pt, Cu, Ni, HASL, ENIG, Sn
RA-42	Unique niche flux with high activity and outstanding capabilities in special applications in the semiconductor industry.	ROH1	Cu, Ni, Cu Alloys (Brass, Bronze), Alloy 42
RSA	Medium activity flux with a proven history in fusible alloys, connector market, and fusible alloys applications. Ensures superior repeatability for mass manufacturing.	ROM1	Cu, Ni, Cu Alloys (Brass, Bronze)

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

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PRODUCT DATA SHEET

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Using Flux-Coated Preforms in Soldering

For certain soldering applications, flux-coated preforms may offer the greatest number of benefits over other more conventional forms of solder. For applications other than active device manufacture, flux can be incorporated as an integral part of the preform design to meet customer needs for the precise amounts of flux, easy automation, and elimination of costly separate flux applications.

Reliability J-STD-004	
LV299	Pass
LV2K	Pass
NC-7	Pass
NC-299	Pass
RA-2	Pass
RA-42	Cleaning Recommended
RSA	Cleaning Recommended

Technical Support

Indium Corporation's internationally experienced engineers provide in-depth technical assistance to our customers. Thoroughly knowledgeable in all facets of Materials 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.

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

- LV2K Flux Coating (99820 R1)
- Solder Preforms (97702 R6)

Application Notes

- Fluxless Soldering (97750 R2)
- Flux and Solder Compatibility (97751 R5)
- Storage and Handling of Flux-Coated Preforms in Tape & Reel (98515 R0)

Safety Data Sheets

Please refer to the SDS document within the product shipment, or contact our local team to receive a copy.

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.

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