ELECTRONIC SOLDERS

BOW NC-1150LF
Water Cleanable Lead-Free No Clean Solder Paste

Product Description

- Synthetic activator
- Can reflow high temperature alloys up to 300°C
- Residues cleanable in water without saponifier
- Complies with RoHS directive 2002/95/EC
- Long stencil life
- Excellent wetting on most board finishes
- Low voiding and solder bead resistant
- IPC Flux Designation REL0

Alloys

Manufactured with low-oxide, spherical and uniformly sized powder. Bow NC-1150LF is available in the following alloys: Sn96.5/Ag3.0/Cu0.5, Sn96.5/Ag3.5, Sn99.3/Cu0.7, Sn95/Sb5 and Sn95Sn/Ag5 alloys.

Powder Distribution

Micron Size	Type	Pitch Requirements
75 – 45	Type 2	24 mil & above
45 – 25	Type 3	16 mil to 24 mil
38 – 20	Type 4	12 mil to 16 mil

Micron Size	Type	Pitch Requirements
25 – 15	Type 5	< 12 mil
15 - 5	Type 6	< 8 mil

Available Packaging

The following packaging options are available for stencil printing and dispensing applications:
250g and 500g jars; 250g and 700g cartridges; 750g ProFlow® cassettes, 35g and 100g syringes.

Stencil Life

- 8 hrs. @ 30-45% RH & 22-25° C
- ≈ 4 hrs. @ 45-70% RH & 22-25° C

Viscosity

Printing applications: 600 to 900 Kcps +/- 10%
Dispensing applications: 400 Kcps +/- 10%
Tested according to IPC-TM-650

Tack Value

Typical tackiness 37g force

Printing

The print definition of Bow NC-1150LF is ideal for fine pitch applications. The stencil life of this product virtually eliminates waste of solder paste. Consult the powder distribution chart to determine your mesh size requirements.

Printer Operation

The following are general guidelines for stencil printer optimization with Bow NC-1150LF. Some adjustments may be necessary based on your process requirements.

- Print Speed: 25-100 mm/sec
- Squeegee Pressure: 0.2-0.7 kg/inch of blade
- Under Stencil Wipe: Once every 10-25 prints or as necessary.

Stencil Cleaning

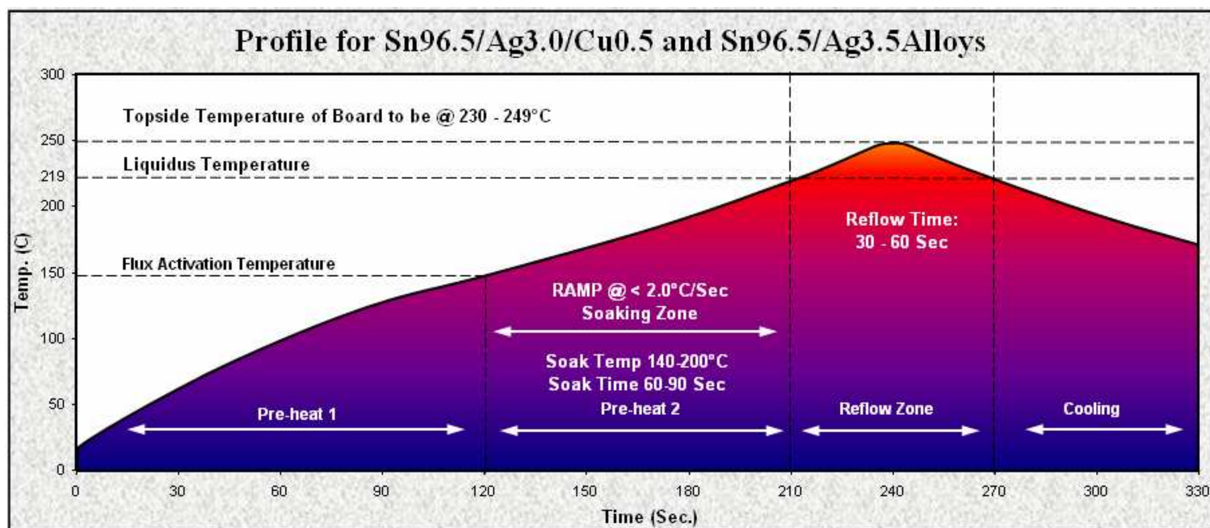
Automated stencil cleaning systems for both stencil and misprinted boards. Manual cleaning using water at 60° C or 99% isopropyl alcohol (IPA). Post-reflow cleaning using water at 40-60°C with 30-50 PSI pressure.

Storage and Handling Procedures

Refrigerated storage at 42-47° F will prolong the solder paste shelf life to no longer than 6 months. Syringes & cartridges should be stored vertically with the dispensing tip down. Solder paste should be allowed to reach ambient temperature naturally, prior to use (about 6-8 hours). NEVER FREEZE SOLDER PASTE.

Recommended Profiles

This profile was designed to serve as a starting position for process optimization using Bow NC-1150LF. A cool down rate of (-) 2-4 C°/second is ideal for the formation of a fine grain structure without risking damage to thermally sensitive components.



IPC J-STD-004 Test Summary Results

Bow NC-1150LF Water Cleanable Lead-Free No Clean Solder Paste		
Flux Classification: REL0		
	Copper Mirror - IPC-TM-650, 2.3.32	No Breakthrough, Rating Category: L
	Silver Chromate - IPC-TM-650, 2.3.33	Pass
	Quantitive Halides; Fluoride, Chloride, Bromide, IPC-TM-650, 2.3.35, 2.3.38	Pass, Rating Category: 0
	Corrosion Test IPC-TM-650, 2.6.15	No Evidence of Corrosion Rating Category: L
	Surface Insulation Resistance (SIR) - IPC-TM-650, 2.6.3.3	
	Unprocessed B-24 Pattern Control	1.23E + 10 Ohms
	B-24 Pattern Uncleaned	5.77E + 10 Ohms
	B-24 Pattern Water Cleaned	8.40E + 10 Ohms

Refer to the MSDS for additional safety information.

The information contained herein is based on data consideration to be accurate and is intended for use by persons having technical skills at their own discretion and risk. Since conditions of use are outside of Bow Electronics control, we cannot assume liability for results obtained or damage incurred due to misuse, nor can we assume customer liability.

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