



SUPERIOR No. 334



NO-CLEAN SOLDERING FLUX

- Formulated for wire tinning, component tinning, and wave soldering/spray flux applications
- Excellent for tinning of insulated and braided wire and solder coating of printed circuit boards
- Contains no rosins or resins
- Meets all of the requirements of Bellcore TR-NWT-000078, Issue 3, December, 1991
- IPC, ANSI J-STD-004, Type ORL0

DESCRIPTION

Superior No. 334 No-Clean flux is specially formulated for automated and manual wire tinning applications, and for spray flux application in wave soldering. Superior No. 334 is an alcohol-based No-Clean flux that has excellent activity levels and affords a wide process window for a No-Clean flux. The post-solder residue exceeds the minimum Bellcore and IPC requirements for cleanliness and provides long-term reliability for critical connections and components.

APPLICATION

Superior No. 334 flux is formulated for all applications as supplied, and may be applied to parts in waterfall, dipping, or spraying processes. With extended use, the flux solids level increases causing the acid number to increase. Flux activity levels should be monitored and maintained using a titration kit. Add **Superior No. 95T** thinner to maintain proper acid number.

Flux solids are designed to be washed off by the solder bath. Hot de-ionized water (60°C/140°F) will remove any remaining residues where cleaning is necessary.

Superior No. 334 is an excellent flux for automated or manual wire tinning processes. For optimum soldering results, use the following guidelines:

- ❶ Make certain that wire surfaces are free of any oil, grease, or other impurities.
- ❷ Dip wire leads in flux
- ❸ If process allows, preheat the wires prior to immersion in solder.
- ❹ Dip wire leads in solder.

SAFETY PRECAUTIONS

Superior No. 334 is a flammable product and should be handled with care and the normal precautions taken when working with chemical products.

When soldering with **Superior No. 334**, adequate exhaust ventilation should be provided. Avoid contact with eyes, skin, and mucous membranes. Always wear NIOSH approved safety equipment when working with chemicals. Store in plastic containers away from heat.

Store flux in an area with controlled temperature between 18-25°C/64-77°F. Exposure to light will discolor flux and turn it dark.

Refer to Material Safety Data Sheet (MSDS) for additional safety information.

Superior manufactures quality fluxes. Our business is solving problems.



**Superior Flux
& Mfg. Co.**

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PHYSICAL PROPERTIES

Form	Colorless Liquid
Specific Gravity	0.801 ± 0.006 @ 20-25°C/68-77°F
Density	6.67 lbs/gallon @ 20-25°C/68-77°F
Flash Point	12°C/53°F T.C.C.
Solids Content	4.0%
Halide Content	None
Acid Number	29 – 40
Recommended Soldering Temperature Range	200-270°C/390-520°F

THIS PRODUCT IS RoHS COMPLIANT

SPECIFICATIONS

Superior No. 334 meets all of the requirements of Bellcore TR-NWT-000078, Issue 3, December, 1991. Tests were performed by an independent laboratory. Test data is on file at Superior Flux & Mfg. Co.

IPC J-STD-004 SPECIFICATION TESTS, SUMMARY RESULTS NO. 334

Flux Materials of Composition: Organic
Classification: ORL0

- I. Solids Content: **Result:** **3.96%**
This test method is designed to determine the residual solids content of the liquid flux after evaporation of the volatile chemicals. (IPC-TM-650, 2.3.34)
- II. Copper Mirror - **Result: No Breakthrough** **Rating Category:** **L**
The test method is designed to determine the removal effect the flux has on a copper mirror. (IPC-TM-650, 2.3.32)
- III. Silver Chromate - **Result: No Color Change** **Rating Category:** **Pass**
The test method is designed to determine the presence of chlorides and bromides in solder flux. (IPC-TM650, 2.3.33)
- IV. Fluoride Spot - **Result: No Color Change** **Rating Category:** **Pass**
This test method is designed to determine the presence of fluorides in soldering flux. (IPC-TM650, 2.3.35.1)
- V. Halide Concentration (part I) **Result: 0.0%** **Rating Category:** **0**
This test method is designed to determine the halide content of fluxes attributable to chlorides and bromides. The halide content is reported as the weight percentage of halide to the solid portion of the flux. (IPC-TM-650, 2.3.35 or 2.3.28)
- VI. Halide Concentration (part II) **Result: 0.0%** **Rating Category:** **0**
This test method is used to determine the concentration of fluoride in soldering flux. The halide content is reported as the weight percentage of halide to the solid portion of the flux. (IPC-TM-650, 2.3.35.2 or 2.3.28)
- VII. Corrosion Test **Result: Minor Corrosion** **Rating Category:** **M**
This test method is designed to subjectively determine the corrosive properties of the flux residue under extreme environmental condition. (IPC-TM-650, 2.6.15)
- VIII. Surface Insulation Resistance (SIR)
This test method is to characterize fluxes by determining the degradation of electrical insulation resistance of a rigid printed wiring board specimen after exposure to the flux under high humidity and heat conditions. (IPC-TM-650, 2.6.3.3)
- | | |
|-------------------------------------|----------------------------------|
| Results: | Rating Category: L |
| Control Value: | 7.09E+12 Ohms |
| Pattern Side Up: | 1.89E+08 Ohms |
| Pattern Side Down Cleaned: | 5.85E+10 Ohms |
| Pattern Side Down Uncleaned: | 1.23E+08 Ohms |

The information contained herein is based on data considered 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 Superior Flux & Mfg. Co.'s control, we cannot assume liability for results obtained or damage incurred due to misuse, nor can we assume customer liability.

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