



No Clean Liquid Flux

Features:

- Rosin, Resin and VOC-Free
- Halide-Free
- Broad Process Window
- Low Post Process Residues
- Fast Wetting for SN100C® and SAC alloys
- Lead-Free and Tin-Lead Compatible

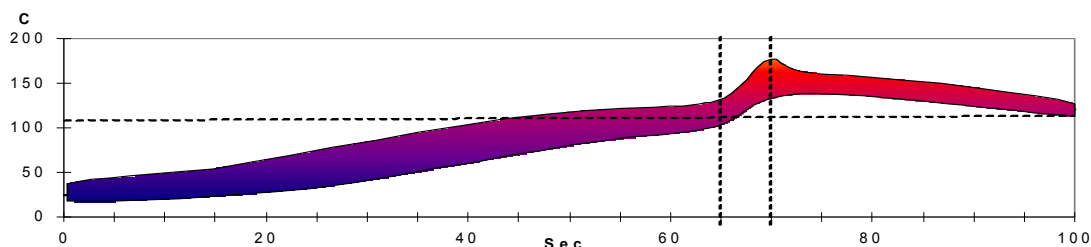
Description:

NC275 is a VOC-free, water-based, no-clean liquid flux formulated to offer a very wide process window for lead-free and tin-lead wave soldering operations. NC275 offers faster wetting for SN100C® and SAC alloys than previously formulated fluxes and is compatible with a broad range of lead-free and tin-lead solder alloys. NC275 offers low post-process residues and has proven to reduce preventative maintenance requirements for spray fluxing applications. In addition, NC275 offers fast solvent evaporation for a VOC-free flux. NC275 is designed to be a no-clean, non-visible residue flux, which can be cleaned if critical to the product application.

Application:

- NC275 is ready to use directly from the container for spray systems.
- When spray fluxing, it is imperative that proper flux coverage and uniformity be achieved and maintained. A dry flux coating of 500 to 1500 micrograms per square inch is necessary.
- When complete nitrogen sealed wave solder equipment is used, it is generally necessary to apply slightly more flux than normal as a result of excess drying due to the extended length of the equipment.

Thermal Profile:



RATE of RISE 2-3°C / SEC MAX	PROGRESS THROUGH 66°C - 77°C (150 - 170°F)	PCB TOP SIDE TEMP 90°C - 125°C (194°F - 257°F)	COOLDOWN ≤ 4°C
	≤ 40 SECONDS	JUST BEFORE WAVE	

Cleaning:

NC275 can be cleaned, if necessary, with saponified water or an appropriate solvent cleaner. Deionized water is recommended for the final rinse. A temperature of 38°C - 65°C (100° - 150°F) is sufficient for removing any residues. An in-line or other pressurized spray cleaning system is suggested, but is not required.

Handling:

- NC275 has an unopened shelf life of 6 months when stored at room temperature. Do not freeze this product.
- Do not store near fire or flame. Keep away from sunlight as it may degrade product.
- NC275 is shipped ready-to-use, no mixing necessary.
- Do not mix used and unused chemical in the same container. Reseal any opened containers.

Safety:

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying **Material Safety Data Sheet** for any specific emergency information.
- Do not dispose of any hazardous materials in non-approved containers.

Physical Properties:

Parameter	Value
J-STD-004	ORM0
Visual	Clear, Colorless to light yellow
Odor	Aromatic (Slightly)
Acid Number	35.4 – 35.7 mg KOH per gram flux

Parameter	Value
Solids Content	4.45 – 4.47%
Specific Gravity	1.009 – 1.018 (water = 1)
Flash Point	None
pH (1% solution /water)	Acidic

Corrosion Testing:

Parameter	Requirements	Results
Copper Mirror (24 hrs @ 25°C, 50%RH)	IPC-TM-650-2.3.32	Medium
Halide Test (Silver Chromate)	IPC-TM-650-2.2.33	Pass

Surface Insulation Resistance:

Reference	Property	Pass-Fail Criteria	Results
IPC-TM-650 method 2.6.3.3 85°C / 85% R.H.	Control coupons	>1E+9 Ω at 96 and 168 hrs	3.15E+9 Ω and 3.02E+9 Ω Pass
	Sample coupons – pattern up	>1E+8 Ω at 96 and 168 hrs	3.20E+9 Ω and 3.07E+9 Ω Pass
	Sample coupons – pattern down	>1E+8 Ω at 96 and 168 hrs	4.33E+8 Ω and 5.76E+8 Ω Pass
	Post-test visual inspection	No dendrite growth or corrosion	Pass

Electromigration:

Test	Conditions	Specification	Results
Electromigration Belcore GR-78 Flux Requirements	65°C/85% R.H. 500 hrs – Control	Rf/Ri > 0.1	7.67E+10 Ω / 5.53E+10 Ω – Pass
	65°C/85% R.H. 500 hrs – Sample	Rf/Ri > 0.1	1.18E+11 Ω / 7.90E+09 Ω – Pass

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