

ALPHA LONCO ROSIN FLUX 800T NO CLEAN FLUX**DESCRIPTION**

LONCO RF800T is medium solids, no-clean flux formulated with a small percentage of rosin and non-halide activators. This unique rosin-activation system promotes excellent solder wetting to protect copper and solder coated surfaces.

Post soldering residue of RF800T is minimal, slightly glossy and can be pin tested without removal.

APPLICATION

RF800T is formulated to be applied with foam, wave, spray and mist fluxers. Flux deposition density and uniformity are critical to successful use of no-clean flux. Applying RF800T to a dry flux coating density of 500 to 1500 micrograms per square inch is recommended. Preheating the circuit assembly will partially dry the flux, enhance oxide removal and promote optimum wicking as well as superior solder joint formation. Degree of preheat is dependent on many variables; such as conveyor speed, type of components and substrates. Entering the solder wave with a top-side temperature of 88°C-115°C and a bottom side temperature of 110°C-160°C is typical. It is recommended to start with low preheat first especially for simple and low thermal mass board. For lead free application, the profile in a separate document would be provided upon request.

CONTROL

The foam applicators should be supplied with compressed air, free of oil and water. Maintain flux fluid level sufficiently above the aerator stone to produce adequate foam height. Adjust air pressure to produce optimum height with foam consisting of uniform bubbles.

In foam, wave or rotary drum spray fluxing, the flux solids will need to be controlled by thinner addition to replace evaporation loss of the flux solvent. As with any flux with less than 5% solids content, specific gravity is not an effective measurement for assessing and controlling the solids content. Monitoring the acid number is recommended for maintaining the solids content. The acid number should be controlled to between 24 and 30. Alpha's technical bulletin SM458 for details on the kit and titration procedure. When operating the foam fluxer continuously, the acid number should be checked every 2 to 4 hours.

In time, debris and contaminants will accumulate in recirculating type flux applicators. For consistent soldering performance, dispose of spent flux periodically. After emptying used flux, the reservoir and applicator should be thoroughly cleaned with flux thinner. Refill reservoir with fresh flux and allow a few minutes to stabilize before resuming soldering operation.

Although RF800T is designed to be left on the board, if desired, post soldering residues can be removed with Alpha 2110 saponifier.

PHYSICAL PROPERTIES

Visual Appearance	Clear, amber liquid
Specific Gravity, 25°C	0.798 ± 0.005
Acid number	27
Flash point	17°C
Solid %	5%
Recommended thinner	RF800 Additive

RELIABILITY TEST DATA

ACCORDING TO IPC-SF-818

Copper mirror	Passed
Silver chromate (for halide)	Passed
Copper corrosion	Passed for M type
Surface Insulation Resistance (85°C, 85%R.H. 7days, 12.5 mil comb pattern)	10 ⁹ ohms (greater than the minimum requirement of 10 ⁸ ohms)
IPC classification	M3NC

ACCORDING TO JIS-Z3197

Viscosity	12 cps
Chloride content	None
Copper plate corrosion	Passed
Dryness test	Passed
Copper mirror test	Passed
Water solution resistance	50000 ohms cm
Insulation resistance	
- Initial	> 10 ¹² ohms
- After 96 hours	> 10 ¹² ohms
Voltage applied	
Moisture resistance	10 ¹⁰ ohms
Spreading Test	89%

PACKAGING

Available in 1, 5 and 55 gal. container.

SAFETY

Material is flammable. Keep away from all sources of heat, sparks and flame.

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