## ALPHA® EF-8800HF

Halogen-Free, High Reliability, Alcohol Based No-Clean Wave Soldering Flux

# Wave Soldering Flux for Thick Board Applications

ALPHA EF-8800HF is an alcohol based flux designed for both standard and thicker, high-density PCBs in Lead-free processes. This flux shows stable performance even under long exposure to higher preheat and higher solder pot temperatures.

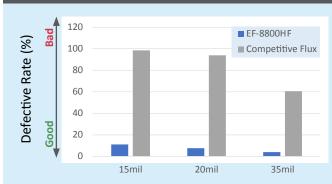
ALPHA EF-8800HF is formulated to have low bridging on bottom side QFPs, as well as provide superior performance in pin testing, hole-fill and solderballing. Additionally, it provides good solder joint cosmetics with an evenly spread, tack-free residue.

### **KEY FEATURES**

- Unique activator/rosin package: Produces highly reliable assemblies with excellent cosmetics and pin testability.
- **Thermally stable:** Excellent soldering in both single and dual wave processes, lead-free alloy capable.
- **Low surface tension:** High through hole penetration rate and uniform SMT pad coverage.
- **Tack free residue:** Excellent post-soldering cosmetics with pin testable residue.
- Halogen Free: Environmentally friendly.

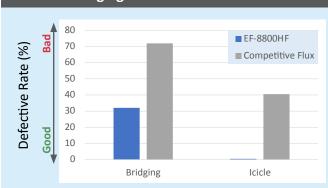


### Hole Filling Performance - SAC305 Alloy



ALPHA EF-8800HF demonstrates outstanding Hole Filling performance.

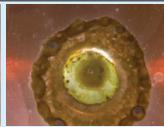
### **Bridging and Icicle Performance**



ALPHA EF-8800HF demonstrates outstanding Bridging and Icicle performance.

### Flux Residue Tackiness (IPC-TM-650 2.4.47)





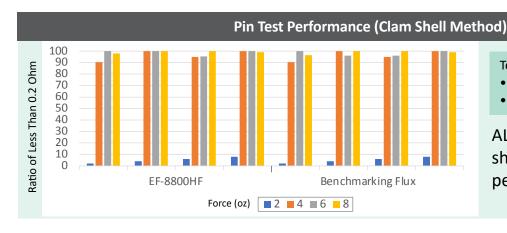
ore Talc Removed

Tack test result shows that ALPHA EF-8800HF residue is non-tacky.



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### Test Parameters:

- Alpha Pin Test Coupon, Ver 2.1
- Small crown probe

ALPHA EF-8800HF shows excellent pin test performance.

#### **TECHNICAL SPECIFICATIONS**

ITEM	SPECIFICATION	ITEM	SPECIFICATION
Appearance	Clear, pale yellow liquid	Flash Point (T.C.C.)	17°C
Solids Content, wt/wt	6.0	Recommended Thinner	ALPHA 425
Specific Gravity @ 25°C (77°F)	0.799 ± 0.003	Shelf Life	12 months
Acid Number (mg KOH/g)	34.0 ± 5.0	IPC J-STD-004B Designation	ORL0

### **HALOGEN CLASS**

ITEM	SPECIFICATION	ITEM	SPECIFICATION
IEC 61249-2-21	Post soldering residues contain <900ppm each or total of <1500ppm Br or CI from flame retardant source	TM EN 14582 Solids extraction per IPC-TM-650 2.3.34	PASS
JEDEC A Guideline for Defining "Low Halogen" Electronic products	Post soldering residues contain <1000ppm Br or CI from flame retardant source		PASS

### **PROCESSING PARAMETERS**

OPERATING PARAMETERS	RECOMMENDATION	
Flux application	Spray	
Amount of Flux Applied	150–465 μg/cm² solids	
Top-Side Preheat Temperature	90−135 °C	
Bottom-Side Preheat Temperature	0 to +32 °C vs. Top-Side	
Solder Pot	250-270 °C	
Contact Time	3–10 seconds	

These are general guidelines which have proven to yield excellent results; however, depending upon your equipment, components, and circuit boards, your optimal settings may be different. In order to optimize your process, it is recommended to perform a design experiment, optimizing the most important variables (amount of flux applied, conveyor speed, topside preheat temperature, solder pot temperature and board orientation).



SCAN THE CODE to know more

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Alpha is a product brand of MacDermid Alpha Electronics Solutions.

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