ALPHA® EF-8800HF

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

Wave Soldering Flux for Thick Board Applications

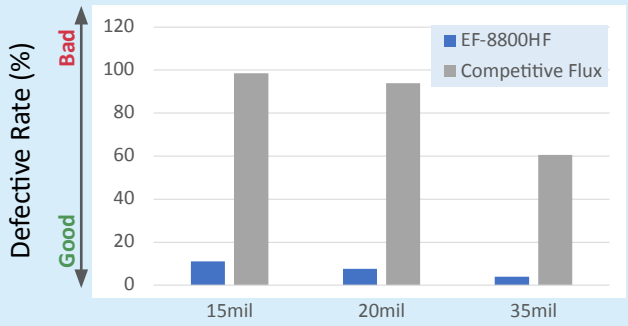
ALPHA EF-8800HF is an alcohol based flux designed for both standard and thicker, high-density PCBs in Lead-free processes. This flux shows stable performance even under long exposure to higher preheat and higher solder pot temperatures.

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

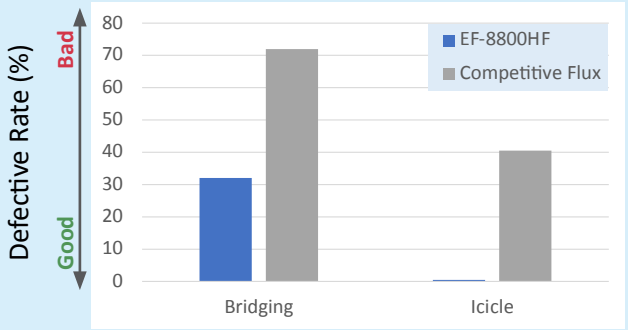
- **Unique activator/rosin package:** Produces highly reliable assemblies with excellent cosmetics and pin testability.
- **Thermally stable:** Excellent soldering in both single and dual wave processes, lead-free alloy capable.
- **Low surface tension:** High through hole penetration rate and uniform 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.

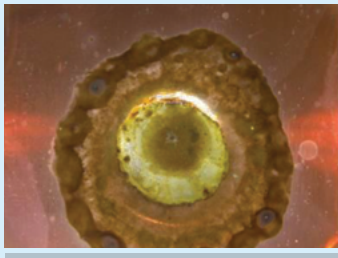
Bridging and Icicle Performance



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

Flux Residue Tackiness (IPC-TM-650 2.4.47)

Before



Talc Removed

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

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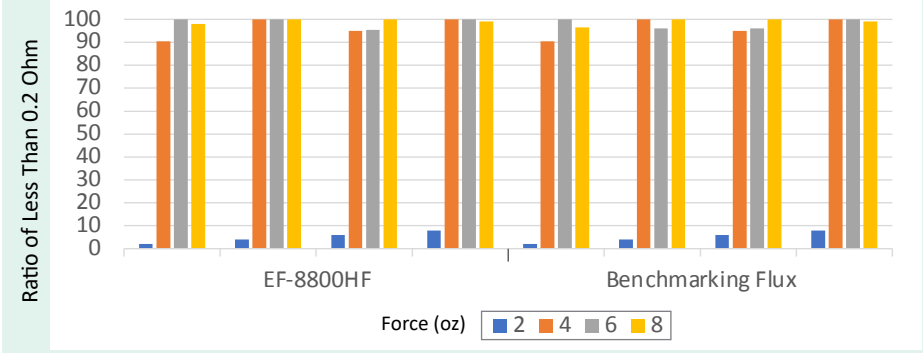
Pin Test Performance (Clam Shell Method)



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 Cl 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 Cl 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).

MacDermid Alpha ELECTRONICS SOLUTIONS

macdermidalpha.com

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SCAN THE CODE to know more

For more information, contact us at Assembly@MacDermidAlpha.com

Alpha and Kester are a product brand of MacDermid Alpha Electronics Solutions.