

BAF 1488HF

Halogen Free Water Soluble Ball Attach Flux

Preliminary Datasheet

Product Description

Kester BAF 1488HF is a water soluble tacky soldering flux formula with next generation halogen free activator system. There are no intentionally added halogens.

BAF 1488HF is designed to have high tackiness to minimize component movement and misalignment during reflow.

BAF 1488HF although is Halogen free it has high soldering activity and can be a drop in replacement for a variety of metallurgies; such as typical tin-lead eutectic and the higher melting point alloys (SnAg, SnCu, SnAgCu, etc.). Post reflow the residues are completely soluble in water and do not require any cleaning additives.

- Residue removal by hot DI water (~85°C)
- Truly Halogen Free (No intentionally added halogens)
- Highly active
- Leaves bright/shiny solder joints after reflow
- ANSI/J-STD-004B flux anticipated ORH0
- Can reflow in air or nitrogen environments



Physical Properties (typical)

Viscosity: 310 poise - Typical

Tested to J-STD-004B, IPC-TM-650, Method 2.4.34.4

Tackiness (grams-force): 95 Typical

Kester Method #1W-QC-3-04

Acid Number: 37 - Typical

Tested to J-STD-004B, IPC-TM-650, Method 2.3.13

Quantitative Halides: None

Tested to J-STD-004B, IPC TM-650 2.3.42

Quantitative Halogen: None

BS EN14582 (Halogen Analysis) O2 Bomb

Visual Appearance: Pale Yellow

Kester Method #1W-QC-G-18

Reliability Properties (typical)

Copper Mirror Corrosion: Low

Tested to J-STD-004B, IPC-TM-650, Method 2.3.32

Copper Corrosion Test: High

Tested to J-STD-004B, IPC-TM-650, Method 2.6.15

Typical S.I.R., IPC: Pass

Tested to J-STD-004B, IPC-TM-650, Method 2.6.3.7

	BLANK	CLEAN BAF-1488HF
Day 1	$9.79 \times 10^9 \Omega$	$9.31 \times 10^9 \Omega$
Day 4	$1.08 \times 10^{10} \Omega$	$9.53 \times 10^9 \Omega$
Day 7	$1.02 \times 10^{10} \Omega$	$9.66 \times 10^9 \Omega$

Typical E.C.M, IPC: Pass

Tested to J-STD-004B, IPC-TM-650, Method 2.6.14.1

	CLEAN BAF-1488HF
96 Hr	$3.37 \times 10^6 \Omega$
596 Hr	$3.71 \times 10^6 \Omega$

Application Notes

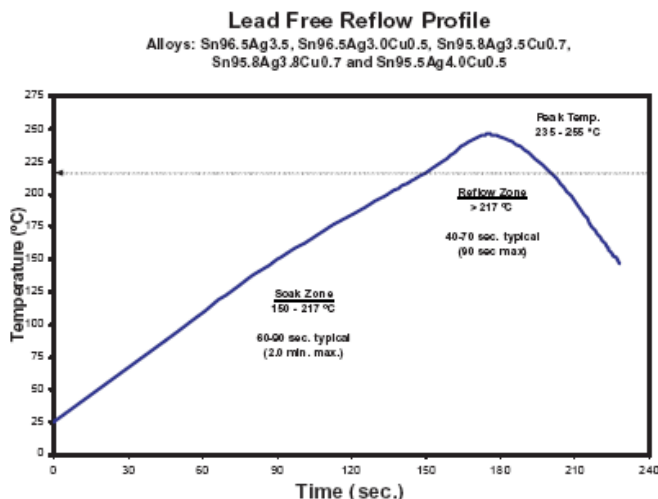
Standard Applications:

BAF 1488HF Tacky solder flux formulations are designed for stencil/screen printing, pin transfer and dipping applications. Tacky solder flux formulations can be used as a tack and flux vehicle for soldering components to a solid solder deposit (SSD), Ball grid array (BGA) ball attach, Chip Scale packages or precision pad technology (PPT) board surfaces. Great for rework applications on all PCB packages.

Reflow Profile:

Recommended Reflow Profiles:

The recommended convection reflow profile for Sn96.5Ag3.5, Sn99.3Cu0.7, or the various SnAgCu alloys is shown here. This profile is simply a guideline. As BAF 1488HF was engineered to be a versatile, robust interconnect material other reflow profiles will be effective. The optimal profile for a process may be different from the one shown based on oven type, component design, fixturing and mix of defects. Please contact Kester if additional profiling advice is needed. TSF 1488HF will facilitate excellent wetting in an air reflow environment and can also be used in an inert (nitrogen) environment.



Cleaning:

BAF 1488HF residues are best removed using automated cleaning equipment (in-line or batch). A de-ionized water final rinse is recommended. Water temperatures should be ~80°C, with water pressure of 45 to 65 psi. For best results, flux residues should be removed as soon as possible, preferably within 4 hours after soldering. Assemblies should be checked for ionic cleanliness levels to maintain the highest standards possible. IPC J-STD-001 specifies a maximum of 1.56 micrograms/cm² NaCl equivalent when tested in accordance with IPC-TM-650, Test Method 2.3.25 or 2.3.26.

Storage, Handling, and Shelf Life:

TSF 1488HF should be kept at standard refrigeration conditions, 0-10°C (32-50°F). BAF 1488HF should be stabilized at room temperature prior to printing. Please contact Kester if you require additional advice with regard to storage and handling of this material. Shelf life study is still on-going but we anticipate minimum 6 months shelf life from date of manufacture in room temperature and handled properly.

Health & Safety:

This product, during handling or use, may be hazardous to health or the environment. Read the Material Safety Data Sheet and warning label before using this product.

Rev: 15 August 2011

World Headquarters: 800 W. Thorndale Ave. Itasca, Illinois, USA

Phone: (+1) 847-297-1600 • **Email:** customerservice@kester.com • **Website:** www.kester.com

Asia Pacific Headquarters
500 Chai Chee Lane
Singapore 469024
(+65) 6449-1133
customerservice@kester.com.sg

European Headquarters
Ganghoferstrasse 45
D-82216 Gerlinden
Germany
(+49)8142-47850
customerservice@kester-eu.com

Japanese Headquarters
20-11 Yokokawa 2-Chome
Sumida-Ku
Tokyo 130-0003 Japan
(+81) 3-3624-5351
jpsales@kester.com.sg