

BAF-780

Water Clean Tacky Paste Flux

RoHS
compliant

Product Description

BAF780 Water-Clean Tacky Flux has been specially conceived for ball-attach, bumped chip assembly, re-balling and rework applications with lead-bearing and lead-free solder spheres or alloys. It is adapted for high UPH environment. The careful blend of the mild organics in vacuum-packed jars, syringes or cartridges, engenders fluidity and homogeneity during the printing, pin transfer, ball-dip, and dispensing operations. The operating-life is >16 hours with negligible change in viscosity. It is recommended for reflow in nitrogen (N₂) with a maximum oxygen (O₂) level of 5000ppm, whereby maximum fluxing is achieved. Thus, conferring excellent wetting leading to 100% pad coverage resulting in negligible interfacial void, and consequently, bestowing excellent joint reliability.

BAF-780 has been optimised to have an unbeatable list of benefits, some are:

- Halogen-free (ORM0) flux system – no issue with reliability after effective cleaning.
- Trouble-free printing, dipping, pin-transfer and dispensing – good reproducibility of deposits.
- Stable formulation – no drying after 16 hours of continuous use.
- High tack and low flux spread – no ball loss or thieving.
- Full pad and solder ball coverage – high joint reliability and low interfacial void.
- Water-soluble residues – debris-free after water wash (immersion and spray cleaning systems).

Application

BAF-780 is great for general lead free and leaded applications and also rework applications of various electronic devices. It is ideally suited for applications such as pin transfer, ball dip process and stencil printing process.

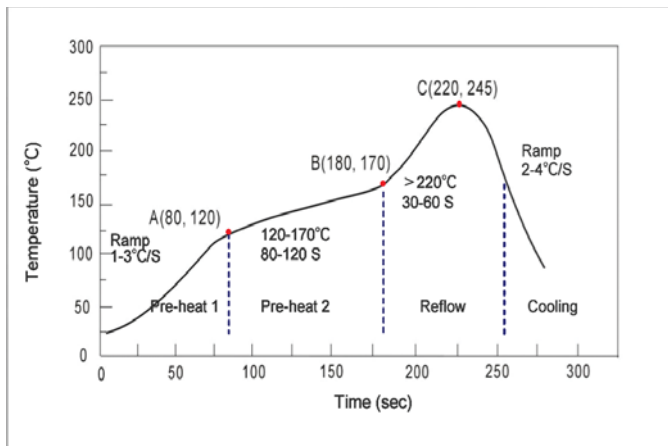
For a 0.2 x 0.2mm pad, ca 100µl of flux may be acceptable for good soldering. The chip should be pressed into the flux and make contact with the pad. These are intended for minimal risk of chip movement during reflow. For dipping or pin transfer, flux should cover 50-70% of the ball height.

Specification (*Preliminary*)

Item	Result
Appearance	yellow to brown paste
Viscosity <small>Brookfield HBDV-II Pro Cone & Plate Viscometer</small>	3000 - 10000 cp (5 rpm @ 25°C)
Halide Content <small>JIS Z 3197 8.1.4.2.1</small>	Not added
Copper Mirror Test <small>IPC-TM-650 2.3.32 JIS Z 3197 8.4.2</small>	Classified as "M", Pass
Copper Corrosion Test <small>IPC-TM-650 2.6.15 JIS Z 3197 8.4.1</small>	Pass
Flux Activity Classification <small>IPC J-STD-004</small>	ORM0
Surface Insulation Resistance (after post soldered residue have been removed with water) <small>(85°C, 85%RH, 168hrs) IPC-TM-650 2.6.3.3</small>	> 1 x 10 ⁸ Ω, Pass
Electromigration <small>(after post soldered residue have been removed with water) (85°C, 88.5%RH, 596hrs) IPC-TM-650 2.6.14.1</small>	Pass

Recommended Reflow Profile

BAF780 can be used in nitrogen (N₂) to solder SAC alloys with the following profile:



Residue Removal

Post-soldered flux residue of BAF-780 must be removed from the circuit using town's water followed by at least three rinses with de-ionised water.

Storage, Handling and Shelf Life

Paste flux has to be thawed to room temperature (~25°C) prior using to avoid condensation. Paste flux left on the stencil should not be put back into the container together with the unused paste flux. It is preferable not to re-use paste flux left on the stencil after printing. BAF-780 can be stored at 15-25°C and used within 6 months.

Health and Safety

Do not handle the paste flux with your bare hand. Use proper tool when handling the paste flux. If the paste flux touches the skin, wash thoroughly with soap and water. For more information, please refer to Material Safety Data Sheet. paste touches the skin, wash thoroughly with soap and water. For more information, please refer to Material Safety Data Sheet.

Packaging

BAF-780 paste flux is available in 10gm and 30gm luer-lok syringes. For other packaging requirements, please contact Asahi sales department.

DISCLAIMER OF LIABILITY

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