

Water Soluble Liquid Flux

Features:

- Excellent Wetting
- Can be Foamed, Sprayed, Brushed or Dipped
- Lead-Free and Tin-Lead Compatible

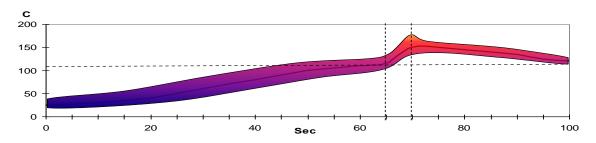
Description:

WS715M is a neutral alcohol based, organically activated, rosin-free, water soluble liquid flux designed specifically for wave solder applications. Though designed for application via foam fluxer, WS715M may also be applied by automated flux sprayers, dipped, or brushed on with favorable results. WS715M is a buffered flux that has a wide activation range and good wetting characteristics that produce bright shiny solder joints. WS715M performs well with bare copper, solder coated, and organic coated pwbs. Since WS715M flux is still active post-process, all residues must be removed from pwbs.

Application:

- WS715M is formulated for application via spray, foam, brush, mist, or dip. For spraying, WS715M is ready to use directly from its container, no thinning required. When spray fluxing, it is imperative that proper flux coverage and uniformity be achieved and maintained. A dry flux coating of 500 to 1500 micrograms per square inch is recommended as a starting point.
- When nitrogen sealed wave solder equipment is used, it is generally necessary to apply slightly more flux than normal as a result of excess drying due to the extended length of the equipment.
- When foaming, air stones should be supplied with compressed air, free of oil and moisture. Adjust foam head to achieve uniform bubble size for optimum coverage. During foaming applications, it is periodically necessary to add AIM's Common Flux Thinner to replace that which is lost due through evaporation.

Thermal Profile:



 RATE of RISE
 PROGRESS THROUGH
 PCB TOP SIDE TEMP
 COOLDOWN

 2-3°C / SEC MAX
 66°C - 77°C (150°F - 170°F)
 87°C - 115°C (190°F - 240°F)
 ≤ 4°C

 ≤ 40 SECONDS
 JUST BEFORE WAVE

Cleaning:

The residues and raw flux are completely water soluble and should be washed in an aqueous cleaning system using deionized or distilled water heated to a recommended temperature of at least 60°C (140°F).

Handling:

- WS715M has an unopened shelf life of 1 year when stored at room temperature.
- Do not store near fire or flame. Keep away from sunlight as it may degrade product.
- WS715M is shipped ready-to-use, no mixing necessary.
- Do not mix used and unused chemical in the same container. Reseal any opened containers.

Safety:

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying Material Safety Data Sheet for any specific emergency information.
- Do not dispose of any hazardous materials in non-approved containers.

Physical Properties:

Parameter	Value
J-STD-004	ORH1
Visual	Clear, Colorless
Odor	Aromatic (Slightly)
Solids Content	11.96%
Acid Number	25.90 mg KOH per gram flux

Parameter	Value
Specific Gravity	0.80 - 0.84 (water = 1)
Flash Point	< 10°C
Boiling Point	82°C
pH (1% solution /water)	7.58

Corrosion Testing:

Parameter	Requirements	Results
Copper Mirror (24 hrs @ 25°C, 50%RH)	IPC-TM-650-2.3.32	High
Halide Test (Silver Chromate)	IPC-TM-650-2.2.33	Halides Present

Surface Insulation Resistance:

Reference	Property	Pass-Fail Criteria	Results
IPC-TM-650 method 2.6.3.3 85°C / 85% R.H.	Control coupons	>1E+9 Ω at 96 and 168 hrs	Pass
	Sample coupons – pattern up	>1E+8 Ω at 96 and 168 hrs	Pass
	Sample coupons – pattern down	>1E+8 Ω at 96 and 168 hrs	Pass
	Post-test visual inspection	No dendrite growth or corrosion	Pass

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