

WS770 VOC-FREE WATER SOLUBLE LIQUID FLUX

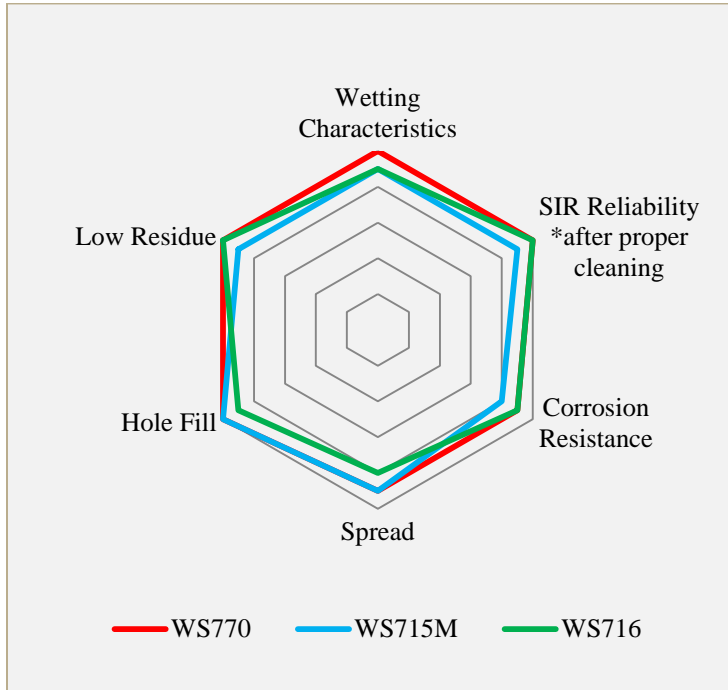
FEATURES

- VOC-Free
- High Activity Level
- Good for Lead-Free or Leaded Solder Alloys
- Excellent Wetting
- Low Foaming in Wash
- Wide Process Window
- Easily Cleaned Residue

DESCRIPTION

WS770 is an organically activated, water-based, VOC-free water-soluble liquid flux formulated to fully atomize during the wave soldering process. WS770 may be applied by spray, foamed, dipped, or brush. WS770 is a buffered flux providing a wide activation range and powerful wetting characteristics producing bright shiny solder joints. WS770 performs well with bare copper, solder-coated, and organic coated PWBs. WS770 residues must be removed with straight DI water.

CHARACTERISTICS



HANDLING & STORAGE

Parameter	Time	Temperature
Sealed Shelf Life	6 Months	Room Temperature

WS770 has a sealed shelf life of six (6) months when stored at room temperature. Do not store near fire or flame. Keep away from sunlight as it may degrade product. WS770 is shipped ready-to-use, no mixing necessary. Do not mix used and unused chemicals in the same container. Reseal any opened containers. Storage conditions range from 4-40°C (40-100°F).

APPLICATION

WS770 is formulated for application via spray, brush, mist, or dip. WS770 is ready to use directly from its container, no thinning required. When spray fluxing, proper flux coverage and uniformity are imperative. A dry flux coating of 500-1500 micrograms per square inch is recommended as a starting point. When nitrogen sealed wave solder equipment is used, it is generally necessary to apply additional flux.

PROCESS GUIDELINES

Using thermocouples attached to the top of the PCB, the topside assembly temperature should be between 85-110°C (185-230°F). It is important that the flux be dry prior to entering the wave regardless of temperature or spattering will occur. Smoking may occur and is considered normal if it is not excessive. Recommended contact time with the wave is dependent on wave configuration, pot temperature, alloy type and thermal mass of the assembly with 4-7 seconds being typical. For processing assistance, please contact AIM Technical Support by visiting <http://www.aimsolder.com/technical-support-contacts>.

CLEANING

WS770 residues must be removed. Straight DI water or saponified wash media, in-line or batch wash are acceptable. Deionized water is recommended for the final rinse. Residues should be removed within 8 hours of application. Contact AIM for cleaning recommendations.

SAFETY

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

TEST DATA SUMMARY

Name	Test Method	Results
IPC Flux Classification	J-STD-004	ORH1
IPC Flux Classification	J-STD-004B 3.3.1	ORH1
Name	Test Method	Results
Copper Mirror	J-STD-004B 3.4.1.1 IPC-TM-650 2.3.32	HIGH
Corrosion	J-STD-004B 3.4.1.2 IPC-TM-650 2.6.15	HIGH
Quantitative Halides	J-STD-004B 3.4.1.3 IPC-TM-650 2.3.28.1	>2 .0%
Qualitative Halides, Silver Chromate	J-STD-004B 3.5.1.1 IPC-TM-650 2.3.33	Halides Present
Qualitative Halides, Fluoride Spot	J-STD-004B 3.5.1.2 IPC-TM-650 2.3.35.1	PASS
Surface Insulation Resistance (Cleaned)	J-STD-004B 3.4.1.4 IPC-TM-650 2.6.3.7	PASS
	J-STD-004 3.4.1.4 IPC-TM-650 2.6.3.3	PASS
Flux Solids, Nonvolatile Determination	J-STD-004B 3.4.2.1 IPC-TM-650 2.3.34	8.94 Typical
Acid Value Determination	J-STD-004B 3.4.2.2 IPC-TM-650 2.3.13	30.7 mg KOH per gram flux Typical
Flux Specific Gravity Determination	J-STD-004B 3.4.2.3 ASTM D-1298	1.02 Typical
Visual	J-STD-004B 3.4.2.5	Colorless
Wetting	J-STD-005A 3.9 IPC-TM-650 2.4.45	PASS