

WATER-WASH WAVE SOLDER FLUXES

Water-Wash Wave Fluxes

Water-wash wave fluxes are a balance between activity and easy cleaning capability. Halide-free formulations tend to have the ability to clean better as measured by post-wash ionic levels. The higher solids content products are better for foaming; the lower solids are better for spray application. Spray application methods are more user-friendly by eliminating the need for specific gravity monitoring and thinner additions. This group of fluxes have a robust process window.

1095-NF

High activity halide-containing. This product is suited for soldering oxidized metallization. Cleaning can be delayed for 48 hours without reducing the cleaning ability. A robust operating window for SnPb and Pb-free processes. Can be applied by foam or spray.

IPC J-STD-004A Classification: ORH1

Solids Content: 19.52%

Halide content: >2.0%

1081 SERIES

Halide-/halogen-free high activity. These products can be used for SnPb and Pb-free processes. Cleaning should be completed within 30 minutes of soldering. 1081-T is best for spray application; 1081 is best for foaming processes.

IPC J-STD-004A Classification: ORH0

Solids Content: 1081-T: 12.57% 1081: 28.44%

Halide Content: 0%

WF-1098

Halide-containing that cleans extremely well with just water. Solder joints are shiny with no interaction with solder mask. Cleans to low ionic contamination levels with cleaning delay up to 48 hours. Can be used for SnPb and Pb-free processes. Spray or foam application. Not corrosive to soldering equipment.

IPC J-STD-004B Classification: ORM1

Solids Content: 10.34%

Halide Content: <2.0%

WF-1082

Halide-/halogen-free product that cleans extremely well with just water. Solder joints are shiny with no interaction with solder mask. Cleans to low ionic contamination levels with cleaning delay up to 48 hours. Can be used for SnPb and Pb-free processes. Passes the modern stringent test methods as a halide-/halogen-free material. Not corrosive to equipment.

IPC J-STD-004B Classification: ORM0

Solids Content: 14.46%

Halide Content: 0%

1010

High activity halide-containing VOC-free. This product is suitable for soldering oxidized metallization. Cleaning should be completed as soon as possible after soldering. Can be used for SnPb and Pb-free processes. Can be applied by spray.

IPC J-STD-004 Classification: ORH1

Halide Content: >2.0%

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- Extensive product range
- Lowest cost of ownership

WAVE SOLDER FLUX

Indium Corporation offers a full line of competitive, state-of-the-art wave solder fluxes for electronics assembly.



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NO-CLEAN WAVE SOLDER FLUXES

Alcohol Rosin-Free Wave Fluxes

Rosin-free wave fluxes have the capability of leaving the assembly with very low levels of residue. This type of flux is user friendly with easy machine and pallet maintenance due to no rosin residue build-up. These products are generally usable with all soldering processes, but they can have a narrower operating window and can leave white residue if not used properly or when used in a selective pallet process.

WF-9942

Highest activity no-clean. Low residue levels for best pin probe testability. Can be used for SnPb and Pb-free wave, selective pallet, and selective soldering. Residues can be cleaned with water.

IPC J-STD-004A Classification: ORLO

Solids Content: 4.37%

Acid Value: 36

WF-9958

Balance between activity and high-reliability. This product passes the modern stringent test methods as a no-halide/no-halogen material. Low residue levels for best pin probe testability. Can be used for SnPb and Pb-free wave, selective pallet, and selective soldering. Residues can be cleaned in water.

IPC J-STD-004B Classification: ORM0

Solids Content: 4.99%

Acid Value: 28.5

3592

Lower solids version of WF-9942 with all the same attributes. Best for processes requiring the highest activity with the lowest level of post-wave residue.

IPC J-STD-004A Classification: ORLO

Solids Content: 2.64%

Acid Value: 22

3590 SERIES

These products were developed for SnPb processes. They provide the lowest residue levels and good activity. The residues can be cleaned with water if needed.

IPC J-STD-004A Classification: ORLO

Solids Content: 3590-T: 1.85% 3590-TX: 2.50%

Acid Value: 3590-T: 16 3590-TX: 22

Alcohol Rosin-Containing Wave Fluxes

Rosin-containing wave fluxes leave a thin rosin coating on the assembly that provides high-reliability, regardless of the amount of residue remaining. These types of products are versatile for use in all soldering processes and offer a robust process window.

WF-9940

Offers high activity and minimal residue levels. Residue can be probed for good pin testability. Can be used for SnPb and Pb-free wave, selective wave, and selective soldering processes.

IPC J-STD-004A Classification: ROL0

Solids Content: 3.63%

Acid Value: 18

WF-9948

High activity with enhanced reliability. This product passes steam extraction ionic residue tests and conforms to the latest IPC specification tests. Can be used for SnPb and Pb-free wave, selective wave, and selective soldering processes. Good pin testability.

IPC J-STD-004B Classification: ROL0

Solids Content: 3.27%

Acid Value: 14.9

WF-9945

High-reliability medium solids product. Passes the modern stringent tests as a halide-/halogen-free material. Can be used in SnPb and Pb-free wave, selective wave, and selective soldering processes.

IPC J-STD-004B Classification: ROL0

Solids Content: 5.77%

Acid Value: 14.4

WF-9946-NP

High activity halide-/halogen-free product. Offers high-reliability in a reduced solids formulation. Meets the latest IPC specification tests. Can be used for SnPb and Pb-free wave, selective wave, and selective soldering processes. Uses a unique US EPA non-ozone depleting alcohol for environmentally friendly manufacturing. Good pin testability.

IPC J-STD-004B Classification: ROL0

Solids Content: 5.22%

Acid Value: 20.6

WF-9955

Hybrid product. Weak organic acid flux with a small amount of rosin. Provides lower residue levels and partial encapsulating properties of rosin. Halide-/halogen-free product that meets the latest IPC specifications. Good pin testability for use in SnPb and Pb-free wave, selective wave, and selective soldering processes.

IPC J-STD-004B Classification: ORLO

Solids Content: 4.71%

Acid Value: 26.25



VOC-Free Wave Fluxes

VOC-free wave fluxes have the capability of leaving the assembly with very low levels of residue. This type of flux is user friendly with easy machine and pallet maintenance due to the weak organic acid make up. These products are generally usable with all soldering processes but they can have a narrower operating window and can leave white residue if not used properly or when used in a selective pallet process. Water-based materials are environmentally friendly with the elimination of VOC emissions.

WF-7742

Highest activity VOC-free no-clean. Low residue levels for best pin probe testability. Can be used for SnPb and Pb-free wave, selective pallet, and selective soldering processes. Residues can be cleaned with water.

IPC J-STD-004A Classification: ORLO

Solids Content: 5.76%

Acid Value: 36

WF-7745

High activity halide-/halogen-free. Meets the modern stringent tests for halide-/halogen-free materials for the highest reliability. Low residue levels for best pin probe testability. Can be used for SnPb and Pb-free wave, selective pallet, and selective soldering processes. Residues can be cleaned with water. The surfactant system used in this formulation does not interact with the solder mask, resulting in a better-looking assembly.

IPC J-STD-004A Classification: ORLO

Solids Content: 4.29%

Acid Value: 39.3

1075-EX SERIES

Initially formulated for SnPb processes, these can also be used in Pb-free processes. These all offer low residue levels for best pin probe testability. Suitable for use in wave, selective pallet, and selective soldering processes. The 1075-EXR series is formulated to reduce solder balls. The 1075-EX series leaves the least amount of dry residue.

IPC J-STD-004A Classification: ORLO

Solids Content: 1075-EXR40: 6.23 1075-EXR30: 3.71

Acid Value: 1075-EXR40: 40 1075-EXR30: 30

Solids Content: 1075-EX30: 3.13

Acid Value: 1075-EX30: 30

