Heraeus

Technical Data Sheet



WAVE FLUX

Product Name: Surf 130

Product Type: VOC-free, water based, no-clean Flux

Description

Surf 130 is a water-based, halide-free and low-solid flux, developed for the use in industrial electronics manufacturing. It helps to reduce emissions of volatile organic compounds (VOC) by replacing IPA with water as solvent.

Typical Properties

Chemistry:

Colour: clear, colourless liquid Solid content: 3,0% Halide content: Zero Acid value (on liquid): 26 mg KOH g-1 Specific density at 25°C (77°F) 1.007 g/cm³ Recommended thinner: no thinner required J-STD-004 classification: OR L0 10¹⁰ Ohm SIR-Test: Copper mirror: Pass L0 Copper corrosion: Pass L0 DIN EN 29454-1 classification: 2.1.3.A

Recommended Processing Guidelines

Spray Application:

The use of thinners will not be required. The flux is used as supplied and the fresh flux is spray applied to the board for only Spray system.

Preferred Upper Limit of Flux Coverage:

To ensure that the soldered boards pass the cleanliness test, the upper limit for flux coverage is 15-20ml/m² circuit.

Key Benefits

- No-Clean formulation
- Leaves electrical safe residues no removal of residues required
- For all available lead-free alloys / solders
- Application with spray fluxer
- Non-flammable formulation <1% VOC meets US air quality legislation
- Ensures a good wetting on surfaces and in through holes

Appearance after soldering

- No readily observable residues
- Most of the used solder resist are shiny and not tacky
- Shiny solder joints

Topside Preheat

The special mixing of alcohol used into the formulation of Surf 130 allows to get a fast evaporation of the solvents. The acids are already activated at room temperature and any special thermal profile is required. In most of the case at 100-130 °C at the exit of the preheat zone is enough to get a good wetting and quality solder joints.

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Soldering Atmosphere

Air or Nitrogen

General Notes

The recommended leading to a contact time with the molten solder of 3-6 seconds. The solder temperature can be between 265-280 °C

The Surf 130 is manufactured by Stannol Oskarstraße 3-7 • 42283 Wuppertal

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Cleaning

Although designed as a no clean product, if residues need to be removed they can readily be removed using standard cleaning systems and solvents.

Storage Conditions

The flux must be stored at room temperature. The shelf life in this condition is maximum 24 months. Ensure that the flux has reached room temperature before use.

The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application.

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