kester® Technical Data Sheet

955 Soldering Flux

Low Solid, Low Residue, No-Clean Liquid Flux for Photovoltaic Assembly

Product Description

Kester 955 is a low solid, low residue, no-clean non-rosin organic flux designed specifically for use in tabber and stringer equipment of Photovoltaic Assembly (PV) through soldering tabs to cell contacts. 955 can be applied directly to interconnecting ribbon by hand soldering and auto-equipment with tabbing and stringing soldering system, and by dipping or spraying methods. The extremely low solids content (around 1.6%) and nature of the activator system results in practically no residue left on the cell after soldering. Cells are dry and cosmetically clean as they exit the tabber and stringer machine. 955 has a wide operating window and temperature range. It can be used in SnPb, SnAgPb and Pb-free applications.

Performance Characteristics:

- Halide-free & low-solid
- Minimal residue after reflow
- Low-solid
- Eliminates cleaning process
- Fast throughput due to quick wetting and drying
- Excellent slip reduction
- Produces high reliable ribbon that interconnects solar cells
- Less residue that support higher power transfer efficiencies
- Compatible with EVA
- Classified as ORL0 per J-STD-004 and conforms to Bellcore GR-78 requirement
- Can be applied by using spraying method or via dipping tank

RoHS Compliance

This product meets the requirements of the Restriction of Hazardous Substances (RoHS) Directive. Additional RoHS information is located at https://www.kester.com/downloads/environmental.

Physical Properties

Appearance: Clear, colorless liquid

Specific Gravity: 0.800
Anton Paar DMA 35 @ 25°C

Acid Number (typical): 10.0 mg KOH/g of flux
Tested by potentiometric titration

Flux Percent Solids (wt/wt) (theoretical): 1.6%

Dry Residue: Less than 0.1%

Reliability Properties

Copper Mirror Corrosion: Pass
Tested to J-STD-004, IPC-TM-650, Method 2.3.32

Corrosion Test: Pass
Tested to J-STD-004, IPC-TM-650, Method 2.6.15

Surface Insulation Resistivity (SIR), (typical): Pass
Tested to J-STD-004A, IPC-TM-650, Method 2.6.3.3

	Blank	955
96 hr (ohm)	$2.5*10^{10}$ Ω	$2.5*10^{10}$ Ω
168 hr (ohm)	$2.0*10^{10}$ Ω	$2.0*10^{10}$ Ω

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Flux Application

955 can be applied by a spraying or dipping application method.

Process Considerations

955 is engineered for the PV industry. The chemical flux is designed for both automated tabber and stringer application, including hand soldering. Standard pre-heating and heat temperature can be used without special cooling or pre-baking. Consult your Equipment Supplier or Kester Technical Support for further information.

Cleaning

955 flux residues are non-conductive, non-corrosive and do not require removal in most applications. If residue removal is required, consult Kester Technical Support for cleaning recommendation.

Storage and Shelf Life

955 is flammable. Store away from sources of ignition. Shelf life is 1-year from the date of manufacture when handled properly and held at 10-25°C (50-77°F).

Health and Safety

This product, during handling or use, may be hazardous to your health or the environment. Read the Safety Data Sheet (SDS) and warning label before using this product.

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