kester® Technical Data Sheet

953S Soldering Flux

Low-Solids, No-Clean Liquid Flux for Photovoltaic Assembly

Product Description

Kester 953S is a zero-halogen, non-rosin organic flux designed specifically for use in tabber and stringer equipment of Photovoltaic Assembly (PV) module industry by soldering tabs to cell contacts. 953S could be applied directly to interconnecting ribbon by hand soldering or auto-equipment with tabber and stringer soldering system, by dipping or spraying. The low solids content and nature of the activator system results in practically no residue left on the cell after soldering. Cell are dry and cosmetically clean as they exit the tabber and stringer machine. 953S has a wider operating window varying with temperature range, and can be used in SnPb, SnAgPb and Pb-free alloys.

Performance Characteristics:

- Produces high reliable ribbon that interconnects solar cells
- Wetting and Drying quickly allowing fast throughput
- Zero-Halogen

RoHS Compliance

This product meets the requirements of the Restriction of Hazardous Substances (RoHS) Directive, 2011/65/EU for the stated banned substances.

Physical Properties

Percent Solids (theoretical): 2%

Specific Gravity: 0.818
Anton Paar DMA 35 @ 25°C

Acid Number (typical): 14.3mg KOH/g flux (pH 9.2 in water)
Tested by potentiometric titration

Flux Application

Need to ensure flux is sufficiently applied on the cell to prevent dewetting and residues.

Process Considerations

953S is engineered for the PV module industry for both automated tabber and stringer application, and hand soldering. Standard pre-heating and heat temperature can be used without special cooling or pre-baking required. Consult your machine supplier or Kester Technical Support for further information.

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Cleaning

953S flux residues are non-conductive, non-corrosive and do not require removal in most applications. If residue removal is required, contact Kester Technical Support for further cleaning recommendation.

Storage and Shelf Life

953S is flammable. Store away from sources of ignition. Shelf life is 1 year from the date of manufacture when handled properly and stored between 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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