



2331-ZX FLUX-PEN®

Organic Water-Soluble Flux-Pen® for Lead-bearing and Lead-free Alloys

Product Description

Kester 2331-ZX Flux Pen® is designed for leaded and lead-free rework of conventional and surface mount circuit board assemblies. 2331-ZX Flux Pen® is an innovation in organic acid water-soluble flux chemistry for soldering circuit board assemblies. This unique, neutral pH chemistry flux provides the best ionic cleanliness of any organic watersoluble flux available to the electronics industry. This popular flux has been used for soldering critical assemblies in the telecommunications, computer and other industries. No offensive odors will be emitted during soldering. 2331-ZX Flux Pen® will not create excessive foaming in standard water cleaning systems. 2331-ZX Flux Pen® has good soldering properties for improved productivity without sacrificing reliability of the assembly. This flux does not attack properly cured solder masks or FR-4 epoxy-glass laminate. 2331-ZX Flux Pen® is not detrimental to the surface insulation resistance of the soldered assembly. Use of this flux minimizes cleaning costs while complying with environmental regulations.

Performance Characteristics:

- High activity
- Chemically compatible with most solder masks and board laminates
- pH Neutral Chemistry
- Classified as ORH1 per J-STD-004

RoHS Compliance

This product meets the requirements of the Restriction of Hazardous Substances (RoHS) Directive, 2015/863 for the stated banned substances.

Physical Properties

Specific Gravity: 0.899 ± 0.005
Anton Paar DMA @ 25°C

Percent Solids (theoretical): 33%
Tested to J-STD-004, IPC-TM-650, Method 2.3.34

Reliability Properties

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

Chloride and Bromides: 2.2%
Tested to J-STD-004, IPC-TM-650, Method 2.3.35

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

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

Fluorides by Spot Test: Pass
Tested to J-STD-004, IPC-TM-650, Method 2.3.35.1

	Blank	2331-ZX
Day 1	1.2 × 10 ¹⁰ Ω	3.4 × 10 ⁸ Ω
Day 4	8.7 × 10 ⁹ Ω	1.4 × 10 ⁸ Ω
Day 7	8.6 × 10 ⁹ Ω	1.8 × 10 ⁸ Ω

Silver Chromate: Fail
Tested to J-STD-004, IPC-TM-650, Method 2.3.33

Flux Application

2331-ZX Flux-Pen[®] is applied to circuit boards via Flux-Pen[®] for rework of printed wire assemblies.

Process Considerations

2331-ZX Flux-Pen[®] should only be applied to areas that will be fully heated by the soldering iron or other reflow tool. Care should be taken to avoid flooding the assembly. The surface tension has been adjusted to help the flux form a thin film on the board surface allowing rapid solvent evaporation.

Cleaning

Flux residues after soldering must be removed as they are conductive and corrosive. No neutralizer, saponifiers or detergents are necessary in the water wash system for complete removal of flux residues. It is not recommended to use high mineral content tap water. Otherwise, tap, deionized or softened water may be used for cleaning. The optimum water temperature is 54-66°C (130-150°F), although lower temperatures may be sufficient.

Storage, Handling and Shelf Life

2331-ZX Flux-Pen[®] is flammable. Store away from sources of ignition. Shelf life is 2 years from the date of manufacture when handled properly and held at 10-25°C (50-77°F). The cap must be in place when not being used.

Health and Safety

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