

# 1544

## Activated Rosin Liquid Flux

### Product Description

Kester 1544 Activated Rosin Liquid Flux is a homogeneous solution of high quality, purified Grade WW rosin blended into an alcohol solvent system. A very effective activating agent has been added to provide superior fluxing ability. Kester 1544 is a liquid equivalent of Kester 44 Activated Rosin Core Solder. The desired flux activity and the amount of rosin residue are determined by the concentration (solids percentage) of the flux.

Kester 1544 has been developed for fluxing applications where non-activated and mildly activated rosin fluxes are too inactive to remove metal oxides, where proper and complete residue removal of potentially corrosive water-soluble organic acid flux is not possible, and where soldering of electronic assemblies requires instant wetting and excellent capillary flow. Kester 1544 can be used for solder coating or tinning bare leads.

#### Performance Characteristics:

- High thermal stability
- Improves soldering performance
- Classified as ROM1 per J-STD-004

### Physical Properties

**Specific Gravity:** 0.928 ± 0.005

Antoine Paar DMA 35 @ 25°C

**Percent Solids (typical):** 50

Tested to J-STD-004, IPC-TM-650, Method 2.3.34

**Flash Point:** 18°C (64°F)

### Reliability Properties

**Copper Mirror Corrosion:** Moderate

Tested to J-STD-004, IPC-TM-650, Method 2.3.32

**Corrosion Test:** Low

Tested to J-STD-004, IPC-TM-650, Method 2.6.15

**Silver Chromate:** Fail

Tested to J-STD-004, IPC-TM-650, Method 2.3.33

**Chloride and Bromides:** 0.44%

Tested to J-STD-004, IPC-TM-650, Method 2.3.35

**Fluorides by Spot Test:** Pass

Tested to J-STD-004, IPC-TM-650, Method 2.3.35.1

## Application Notes

### Flux Application:

Kester 1544 Activated Rosin Flux can be applied by brush, dip, spray, or wave processes.

### Process Considerations:

The optimum preheat temperature for most circuit assemblies is 90-105°C (194-221°F) as measured on the top or component side of the printed circuit board. Dwell time in the wave is typically 2-4 seconds. The wave soldering speed should be adjusted to accomplish proper preheating and evaporate excess solvent, which could cause spattering. For best results, speeds of 1.1-1.8 m/min (3½-6 ft/min) are used. The surface tension has been adjusted to help the flux form a thin film on the board surface allowing rapid solvent evaporation.

### Flux Control:

Specific gravity is normally the most reliable method to control the flux concentration of rosin-based fluxes. To check concentration, a hydrometer should be used. Kester 104 Thinner is an appropriate solvent for diluting this activated rosin flux to the desired solids content and viscosity, and for restoring solvent loss through evaporation.

### Cleaning:

Kester 1544 flux residues are non-conductive, non-corrosive and do not require removal in most applications. If residue removal is required, call Kester Technical Support.

### Storage and Shelf Life:

Kester 1544 is flammable. Store away from sources of ignition. Shelf life is 2 years from date of manufacture when handled properly and held at 10-25°C (50-77°F).

### Health & Safety:

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

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