

1452

Water-Soluble Liquid Flux

For Heat Sink Applications

Product Description

Kester 1452 is a water based, organic acid (OA) flux. The fluxing activity is provided by a combination of water-soluble organic ingredients and is formulated to have superior wetting and cleaning action. Kester 1452 is halide free and contains no solvent other than water (VOC-free). Kester 1452 is QPL approved as Type WSF-0 in MIL-F-14256F. Kester 1452 has been developed for wave soldering of electronic components in applications, which require more strength than activated rosin but where a halide type flux would not be acceptable. Kester 1452 is especially recommended for use on Alloy 42, Kovar, nickel and can also be used on copper and its alloys.

Performance Characteristics:

- High activity for hard-to-solder nickel alloys
- Halide free
- Bright solder finish after soldering
- Classified as ORM0 per J-STD-004

Physical Properties

Specific Gravity: 1.255 ± 0.005

Antoine Paar DMA 35 @ 25°C

Halide Content: 10 ppm maximum

Availability

Kester 1452 is supplied in non-returnable one, five and fifty-three gallon containers.

Application Notes

Flux Application:

Kester 1452 is usually applied by dip method. If foam application is desired, dilute flux with 25% alcohol. Kester 1452 is normally applied at room temperature. If the flux tank is heated, it might be necessary to make water additions to maintain the specific gravity.

Process Considerations:

Any machinery or construction materials, which might be exposed to direct contact with the flux, should also be able to withstand strong acids. Because Kester 1452 is water based, preheating to 100°C (212°F) after fluxing is strongly advised to prevent spattering. The performance peak of Kester 1452 is 260°C (500°F) with an optimum soldering range of 250-270°C (482-518°F).

Flux Control:

Kester 1452 can be used as received or diluted with water or alcohol before use. Normally dilution should not exceed 1:1 by volume. Mix well when diluting. Specific gravity should be checked to determine concentration in use. Once thoroughly mixed, the solution will not separate upon standing.

Specific Gravity 1:1 with Water	1.133
Specific Gravity 1:1 with Isopropanol	1.034

Cleaning:

Post-soldering residues are water-soluble and can normally be removed in a hot water wash. A wash temperature range of 70-80°C (158-176°F) has been found to be most effective.

Storage and Shelf Life:

Shelf life is 3 years from date of manufacture when handled properly and held at -10-45°C (14-113°F). If the storage temperature exceeds this range, the flux should be brought to room temperature and thoroughly mixed before dilution or use. Kester 1452 should be mixed and kept in polyethylene, PVC or fiberglass reinforced polyester containers at all times. Prolonged storage above 63°C (145°F) will cause some cloudiness and slight separation of the wetting agent may occur. Its performance will not be affected, and cooling with agitation will restore its clarity.

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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