

## TSF-6521C

### No-Clean Tacky Soldering Flux

#### Product Description

Kester TSF-6521C is a no-clean tacky soldering flux that exhibits a very high level of tack. Kester TSF-6521C is designed for pick and place machines that are constantly moving the PCB at high speed doing component placement. The higher level of tack will help in limiting the amount of component displacement during component placement. Kester TSF-6521C can be used in high speed dot dispensing for BGA/PGA sites or in a rework application for surface mount packages. Kester TSF-6521C can also be printed utilizing standard stencil and printer parameters for use in PPT and Opti-pad processes. Kester maintains the highest standards by manufacturing Kester TSF-6521C under a vacuum environment.

#### Performance Characteristics:

- High tack values and long tack life
- Leaves bright/shiny solder joints after reflow
- Can reflow in air or nitrogen environments
- Classified as ROL0 per J-STD-004
- Compliant to Bellcore GR-78

#### RoHS Compliance

This product meets the requirements of the RoHS (Restriction of Hazardous Substances) Directive, 2002/95/EC Article 4 for the stated banned substances.



#### Physical Properties

**Viscosity (typical):** 445 poise

Malcom Viscometer @ 10rpm and 25°C

**Initial Tackiness (typical):** 144 grams

Tested to J-STD-005, IPC-TM-650, Method 2.4.44

**Acid Number:** 75.0 mg KOH/g of flux

Tested to J-STD-004, IPC-TM-650, Method 2.3.13

#### Reliability Properties

**Copper Mirror Corrosion:** Low

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:** Pass

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

**Chloride and Bromides:** None Detected

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

**SIR, IPC (typical):** Pass

Tested to J-STD-004, IPC-TM-650, Method 2.6.3.3

	<b>Blank</b>	<b>TSF-6521C</b>
Day 1	$3.0 \times 10^{10} \Omega$	$6.0 \times 10^9 \Omega$
Day 4	$4.0 \times 10^{10} \Omega$	$2.0 \times 10^9 \Omega$
Day 7	$4.0 \times 10^9 \Omega$	$2.0 \times 10^9 \Omega$

## Application Notes

### Standard Applications:

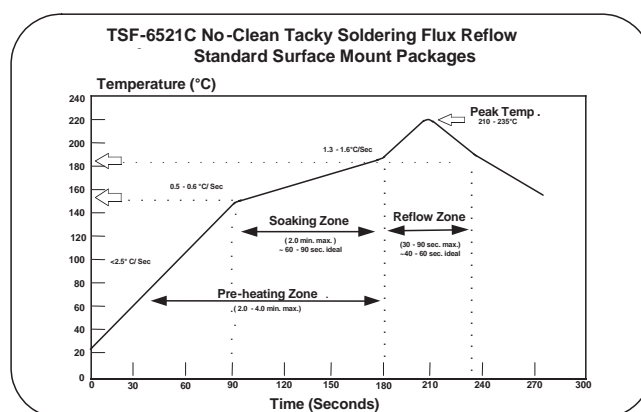
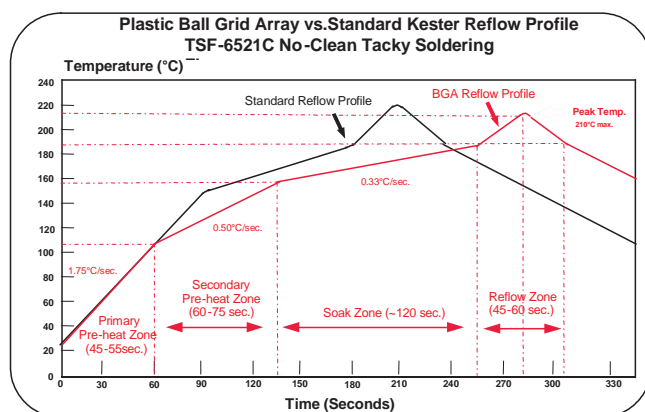
TSF-6521C was designed for stencil/screen printing, pin transfer, dot dispensing and/or syringe applications. This flux can be used as a tack and flux vehicle for soldering components to a solid solder deposit (SSD), or precision pad technology (PPT) board surfaces. TSF-6521C is great for rework applications on all PCB packages. TSF-6521C can be used in BGA/PGA sphere/pin attachment vehicle or for repair and reballing/repinning. This flux works on flip chip, chip scale package and flip chip bumping sites assemblies as a soldering flux.

### Printing Parameters:

Temperature/Humidity: Optimal ranges are 21-25°C (70-77°F) and 35-65% RH

### Recommended Reflow Profiles:

Optimal activation temperatures are 130°-185°C (266-365°F). See "Soak Zone" in diagrams below.



### Cleaning:

TSF-6521C is a no-clean chemistry. The residues do not need to be removed for typical applications. If residue removal is required, call Kester Technical Support.

### Storage, Handling, and Shelf Life:

Refrigeration is the recommended optimum storage condition for TSF-6521C to maintain consistent viscosity, reflow characteristics and overall performance. TSF-6521C should be stabilized at room temperature prior to printing. TSF-6521C should be kept at standard refrigeration conditions, 0-10°C (32-50°F). Please contact Kester if you require additional advice with regard storage and handling of this material. Shelf life is 4 months from date of manufacture when handled properly and held at 0-10°C (32-50°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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