TSF-6502JCR
No-Clean Tacky Soldering Flux

Product Description

Kester TSF-6502JCR is a no-clean tacky soldering flux formula that possesses a high activity level, allowing it to solder nickel surfaces. The robust wetting action of TSF-6502JCR will allow OSP treated copper, as well as heavily oxidized copper, surfaces to exhibit good soldering properties, even after 2 or 3 thermal cycles. Following reflow, TSF-6502JCR will leave aesthetically pleasing clear residues on the assembly. TSF-6502JCR is designed for a wide range of temperature and humidity conditions.

Performance Characteristics:

- Stencil life: 8 hours (process dependent)
- Excellent printing characteristics to <16mil pitch
- Leaves bright/shiny solder joints after reflow
- Can reflow in air or nitrogen environments
- Classified as ROL1 per J-STD-004
- Compliant to Bellcore GR-78

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

Viscosity Range: 100 poise
Malcom Viscometer @ 10rpm and 25°C

Initial Tackiness (typical): 100 grams
Tested to J-STD-005, IPC-TM-650, Method 2.4.44

Acid Number: 89.0 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

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-24 coupon

	Blank	TSF-6502JCR
Day 1	$2.2*10^{10}$ Ω	$1.6*10^{9}$ Ω
Day 4	$1.9*10^{10}$ Ω	$2.0*10^{9}$ Ω
Day 7	$1.4*10^{10}$ Ω	$2.3*10^{9}$ Ω

Standard Applications

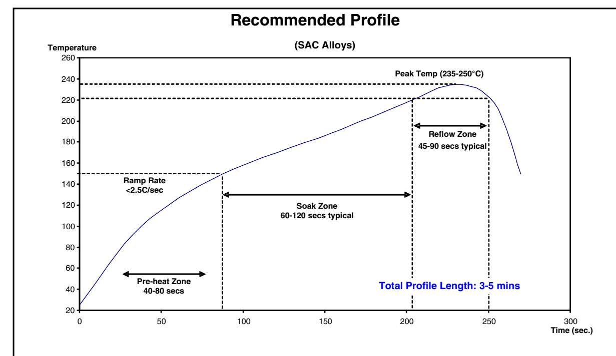
TSF-6502JCR was designed for stencil/screen printing, pin transfer, dot dispensing and/or syringe applications. This flux can be used as a tack and flux vehicle for soldering components to a solid solder deposit (SSD), or precision pad technology (PPT) board surfaces. TSF-6502JCR is great for rework applications on all PCB packages. TSF-6502JCR 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 Profile

Optimal activation temperatures are 150-210°C (302-410°F). See the Soak Zone in diagram below.



Cleaning

TSF-6502JCR is a no-clean formula. The residues do not need to be removed for typical applications. If residue removal is required, contact Kester Technical Support.

Storage, Handling and Shelf Life

Refrigeration is the recommended optimum storage condition for TSF-6502JCR to maintain consistent viscosity, reflow characteristics and overall performance. TSF-6502JCR should be stabilized at room temperature prior to printing. TSF-6502JCR 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 6 months from date of manufacture when handled properly and held at 0-10°C (32-50°F).

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.