

# KESTER® TSF-6502JCR

## No-Clean Tacky Soldering Flux

### 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.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

### 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 2.3.13RoHS

**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	$2.2 \times 10^{10} \Omega$	$1.6 \times 10^9 \Omega$
Day 4	$1.9 \times 10^{10} \Omega$	$2.0 \times 10^9 \Omega$
Day 7	$1.4 \times 10^{10} \Omega$	$2.3 \times 10^9 \Omega$

**STANDARD APPLICATIONS**

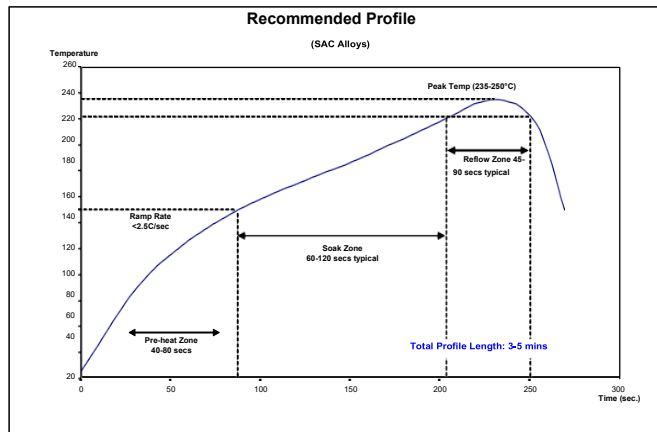
TSF-6502JCR was designed for stencil/screen printing, pin transfer, dot dispensing and/or syringe applications. This flux can be used as a tack and flux vehicle for soldering components to a solid solder deposit (SSD), or precision pad technology (PPT) board surfaces. TSF-6502JCR is great for rework 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 to 25 °C (70 to 77 °F) and 35 to 65% RH

## RECOMMENDED REFLOW PROFILE

Optimal activation temperatures are 150 to 210 °C (302 to 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

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 to 10 °C (32 to 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 to 10 °C (32 to 50 °F).

## SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available.**

## WASTE TREATMENT

Prior to using any recommendations or suggestions for waste treatment, the user is required to know the appropriate local/state/federal regulations for on-site or off-site treatment which may require permits. If there is any conflict regarding our recommendations, local/state/federal regulations take precedent.

## CONTACT INFORMATION

[www.macdermidalpha.com](http://www.macdermidalpha.com)

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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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