

TSF-6516

No-Clean Tacky Soldering Flux

PRODUCT DESCRIPTION

Kester **TSF-6516** 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-6516** 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-6516** will leave aesthetically pleasing clear residues on the assembly. **TSF-6516** is designed for a wide range of temperature and humidity conditions.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

- 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 ROL0 per J-STD-004
- Compliant to Bellcore GR-78

RoHS COMPLIANCE

This product meets the requirements of the Restriction of Hazardous Substances (RoHS) Directive. Additional RoHS information is located at <https://www.kester.com/downloads/environmental>.

PHYSICAL PROPERTIES

Viscosity (typical): 180 poise
Malcom Viscometer @ 10 rpm and 25 °C

Initial Tackiness (typical): 125 grams
Tested to J-STD-005, IPC-TM-650, Method 2.4.44

Acid Number: 75 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

Copper Corrosion: 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

Surface Insulation Resistivity (SIR): Pass
 Tested to J-STD-004, IPC-TM-650, Method 2.6.3.3

	Blank	TSF-6522
Day 1	$6.9 \times 10^{10} \Omega$	$4.0 \times 10^8 \Omega$
Day 4	$4.0 \times 10^{10} \Omega$	$4.9 \times 10^8 \Omega$
Day 7	$3.6 \times 10^{10} \Omega$	$1.0 \times 10^8 \Omega$

STANDARD APPLICATIONS

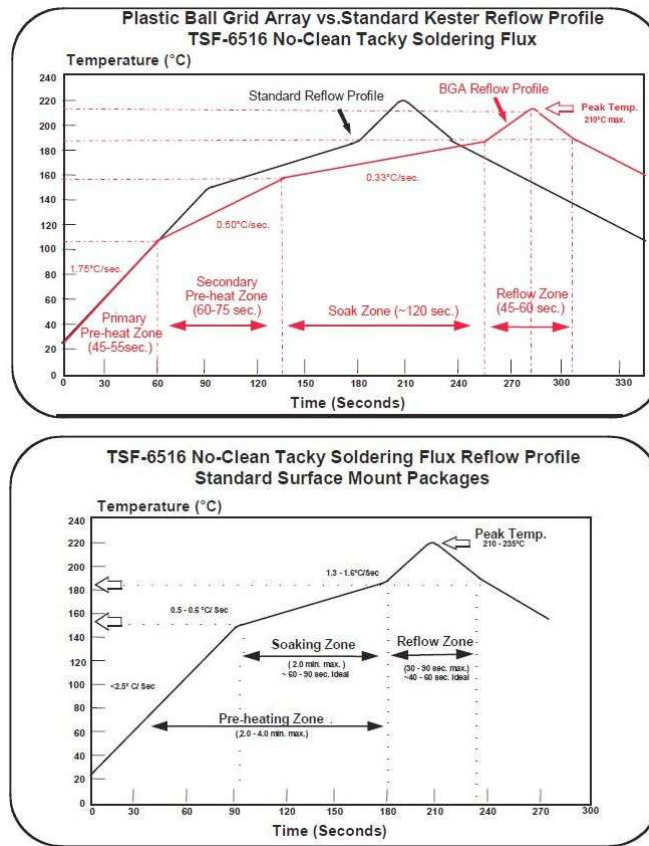
TSF-6516 was designed for stencil/screen printing, pin transfer, dot dispensing and/or syringe applications. This flux can be used as a tack and flux vehicle for soldering components to a solid solder deposit (SSD), or precision pad technology (PPT) board surfaces. TSF-6516 is great for rework applications on all PCB packages. TSF-6516 can be used in BGA/ PGA sphere/pin attachment vehicles 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



CLEANING

TSF-6516 is a no-clean chemistry. The residues do not need to be removed for typical applications. If residue removal is required, contact Kester Technical Support.

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.**

STORAGE

Refrigeration is the recommended optimum storage condition for TSF-6516 to maintain consistent viscosity, reflow characteristics, and overall performance. TSF-6516 should be stabilized at room temperature prior to printing. TSF-6516 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 the date of manufacture when handled properly and held at 0 to 10°C (32 to 50 °F).

CONTACT INFORMATION

To confirm this document is the most recent version, please contact
techinfo@MacDermidAlpha.com

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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