

## TSF-6522

### No-Clean Tacky Soldering Flux

#### PRODCUT DESCRIPTION

Kester **TSF-6522** is a no-clean tacky soldering flux formula designed to be used with a rotating disc, a doctor blade or a drum fluxer. **TSF-6522** can also be used in dot dispensing for BGA/PGA sites or in a rework application for surface mount packages. **TSF-6522** maintains its activity and dispensing characteristics for up to 8 hours and can be used in a wide range of temperature and humidity conditions. Kester maintains the highest standards by manufacturing **TSF-6522** under a vacuum environment.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

#### FEATURES & BENEFITS

- 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-004B
- 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 (typical):** 285 poise  
Malcom Viscometer @ 10 rpm and 25 °C

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

**Acid Number:** 75.4 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

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

Tested to J-STD-004, IPC-TM-650, Method 2.6.3.7

	Blank	TSF-6522
Day 1	$3.1 \times 10^{10} \Omega$	$2.6 \times 10^9 \Omega$
Day 4	$1.3 \times 10^{10} \Omega$	$4.2 \times 10^{10} \Omega$
Day 7	$8.8 \times 10^{10} \Omega$	$6.4 \times 10^{10} \Omega$

**STANDARD APPLICATIONS**

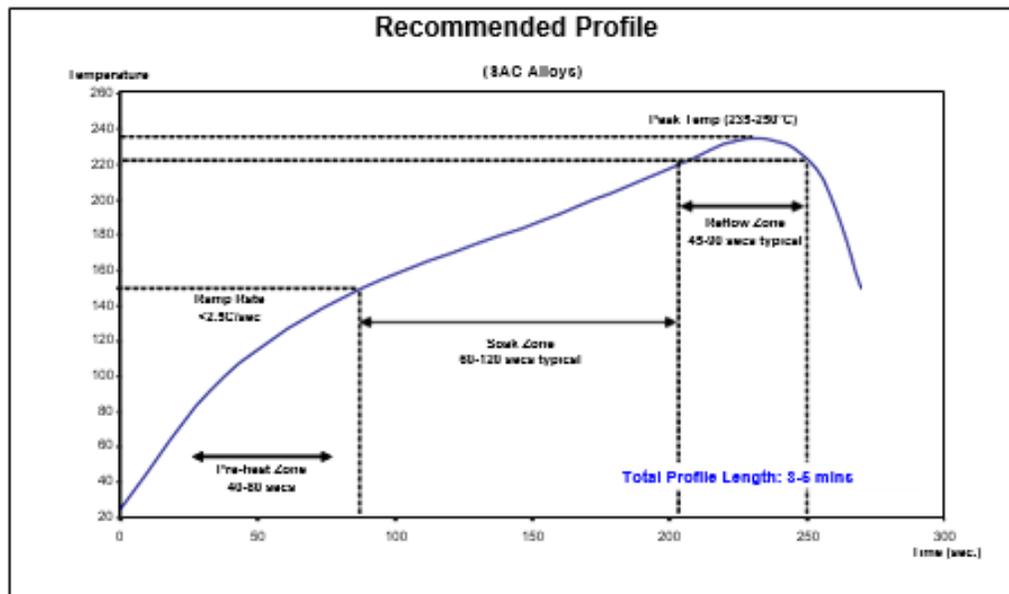
TSF-6522 was designed for pin transfer, dot dispensing and/or syringe applications. This flux can be used as a tack and flux vehicle for soldering components to a solid solder deposit (SSD), or precision pad technology (PPT) board surfaces. TSF-6522 is great for rework applications on all PCB packages. TSF-6522 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 130 to 185 °C (266 to 365 °F). See the Soak Zone in diagrams below. This allows the use of TSF- 6522 in a leaded or lead-free application. In a leaded application, the soak zone time (150 to 184 °C) can be 60 to 90 seconds. The typical peak temperature will be 205 to 215 °C degrees with 60 to 90 seconds over reflow (183 °C). in a lead-free application the soak zone time (150 to 217 °C) can be 60 to 90 seconds. The typical peak temperature will be 235 to 245 °C degrees with 60 to 90 seconds over reflow (217 °C).


**CLEANING**

TSF-6522 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.

**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-6522 to maintain consistent viscosity, reflow characteristics and overall performance. TSF-6522 should be stabilized at room temperature prior to printing. TSF-6522 should be kept at standard refrigeration conditions, 0 to 10 °C (32 to 50 °F). Please contact Kester Technical Support 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](http://www.macdermidalpha.com)

<b>North America</b> 3950 Johns Creek Ct, Suite 300 Suwanee, GA 30024 USA 908.791.2300	<b>Europe</b> Unit 2, Genesis Business Park Albert Drive Woking, Surrey, GU21 5RW, UK 44.01483.758400	<b>Asia Pacific</b> 14 Joo Koon Crescent, Singapore 629014 65.6430.0700
---	---	--

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

DISCLAIMER: All statements, technical information and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness thereof is not guaranteed. No statement or recommendation shall constitute a representation unless set forth in an agreement signed by officers of seller and manufacturer. NO WARRANTY OF MERCHANTABILITY, WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR ANY IMPLIED WARRANTY IS MADE. The following warranty is made in lieu of such warranties and all other warranties, express, implied, or statutory. Products are warranted to be free from defects in material and workmanship at the time sold. The sole obligation of seller and manufacturer under this warranty shall be to replace any noncompliant product at the time sold. Under no circumstances shall manufacturer or seller be liable for any loss, damage or expense, direct, indirect, incidental or consequential, arising out of the inability to use the product. Notwithstanding the foregoing, if products are supplied in response to a customer request that specifies operating parameters beyond those stated above, or if products are used under conditions exceeding said parameters, the customer by acceptance or use thereof assumes all risk of product failure and of all direct, indirect, incidental and consequential damages that may result from use of the products under such conditions, and agrees to exonerate, indemnify, defend and hold harmless MacDermid, Incorporated and its affiliates therefrom. No suggestion for product use nor anything contained herein shall be construed as a recommendation to use any product in a manner that infringes any patent or other intellectual property rights, and seller and manufacturer assume no responsibility or liability for any such infringement.

© 2019 MacDermid, Inc. and its group of companies. All rights reserved. "(R)" and "TM" are registered trademarks or trademarks of MacDermid, Inc. and its group of companies in the United States and/or other countries.