kester® Technical Data Sheet

TSF-6522
No-Clean Tacky Soldering Flux

Product 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.

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-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 @ 10rpm 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

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 2.6.3.7

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

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Standard Applications

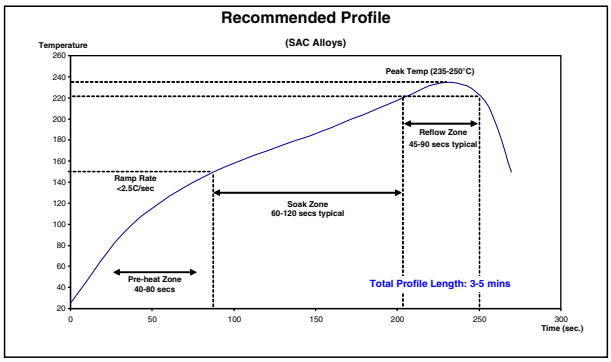
TSF-6522 was designed for pin transfer, dot dispensing and/or syringe applications. This flux can be used as a tack and flux vehicle for soldering components to a solid solder deposit (SSD), or precision pad technology (PPT) board surfaces. TSF-6522 is great for rework applications on all PCB packages. 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 21-25°C (70-77°F) and 35-65% RH

Recommended Reflow Profile

Optimal activation temperatures are 130°-185°C (266°-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°C-184°C) can be 60-90 seconds. The typical peak temperature will be 205°-215°C degrees with 60-90 seconds over reflow (183°C). in a lead-free application the soak zone time (150°-217°C) can be 60-90 seconds. The typical peak temperature will be 235°-245°C degrees with 60-90 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.

Storage, Handling and Shelf Life

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, 0-10°C (32-50°F). Please contact Kester Technical Support if you require additional advice with regard storage and handling of this material. Shelf life is 3 months from the 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.

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