kester®
CONNECTING INNOVATION™

SEMICONDUCTOR MATERIALS

TSF-6502
No-Clean Tacky Soldering Flux

Product Description

Kester TSF-6502 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-6502 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-6502 will leave aesthetically pleasing clear residues on the assembly. TSF-6502 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

Physical Properties

Viscosity (typical): 100 poise
Malcom Viscometer @ 10rpm and 25°C

Initial Tackiness (typical): 117 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

	Blank	TSF-6502
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

勝特力材料 886-3-5753170
胜特力电子(上海) 86-21-34970699
胜特力电子(深圳) 86-755-83298787
Http://www.100y.com.tw

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Application Notes

Standard Applications:

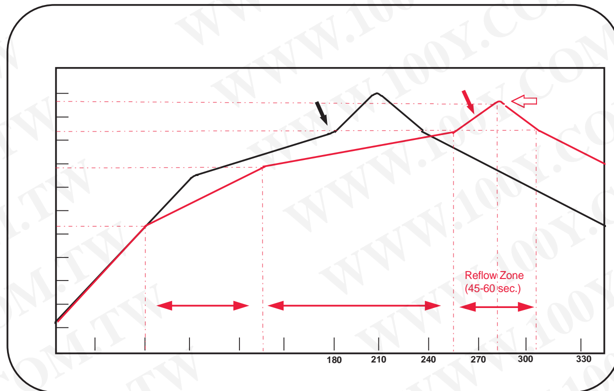
TSF-6502 was designed for stencil/screen printing, pin transfer, dot dispensing and/or syringe applications. This flux can be used as a tack and flux vehicle for soldering components to a solid solder deposit (SSD), or precision pad technology (PPT) board surfaces. TSF-6502 is great for rework applications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

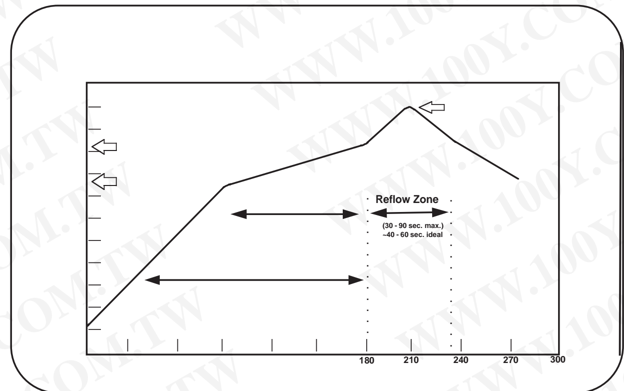
Printing Parameters:

Temperature/Humidity Optimal ranges are 21-25°C (70-77°F) and 35-65% RH

Recommended Reflow Profiles:

Optimal activation temperatures are 130-185°C (266-365°F). See "Soak Zone" in diagrams below.





Cleaning:

TSF-6502 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-6502 to maintain consistent viscosity, reflow characteristics and overall performance. TSF-6502 should be stabilized at room temperature prior to printing. TSF-6502 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 & Safety:

This product, during handling or use, may be hazardous to health or the environment. Read the Material Safety Data Sheet and warning label before using this product.