

TSF-6750

Halogen-Free Rosin-Based ROL0 Tacky Soldering Flux

Product Description

Kester TSF-6750 is a Halogen-Free Tacky Soldering Flux. TSF-6750 has no intentionally added chlorine and/or bromine compounds. TSF-6750 is a highly active flux that is specifically designed to solder OSP treated copper soldering pads that have been oxidized via thermal decomposition during reflow in the manufacturing process. TSF-6750 is designed for lead-free Flip Chip interconnect applications such as Flip Chip Attach including both Solder Bumps and Copper Pillars. TSF-6750 may also be used with other lead-free soldering applications that require a very active flux. In advanced packaging residues should be under filled, over molded, or cleaned.

Performance Characteristics:

- Compatible with lead-free and eutectic tin/lead alloys
- Highly active, solders oxidized OSP Cu pads
- Bright, shiny, soldered joints with low residues
- High tack to minimize skewing of components
- Pot life of 12 hours (process dependent)
- Low voiding
- Classified as ROL0 per J-STD-004B

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: 200 poise (typical)
Tested to J-STD-004B, IPC-TM-650, Method 2.4.34.4

Tackiness (grams force): 170 (typical)
Kester Method #1W-QC-3-04 (JIS method)

Acid Number: 102 mgKOH/gm (typical)
Tested to J-STD-004B, IPC-TM-650, Method 2.3.13

Quantitative Halides: None
Tested to J-STD-004B, IPC TM-650 2.3.42

Quantitative Halogen: None
BS EN14582 (Halogen Analysis) O2 Bomb

Visual Appearance: Medium Amber
Kester Method #1W-QC-G-18

Reliability Properties

Copper Mirror Corrosion: Low
Tested to J-STD-004B, IPC-TM-650, Method 2.3.32

Copper Corrosion Test: Low
Tested to J-STD-004B, IPC-TM-650, Method 2.6.15

Quantitative Halides: None
Tested to J-STD-004B, IPC TM-650 2.3.42

Typical E.C.M, IPC: Pass
Tested to J-STD-004B, IPC-TM-650, Method 2.6.14.1

	Control (Blanks)	TSF-6750
96 Hours	2.56 x 10 ¹⁰ Ω	2.29 x 10 ⁷ Ω
596 Hours	6.24 x 10 ¹² Ω	1.07 x 10 ¹² Ω

✓ Standard Applications

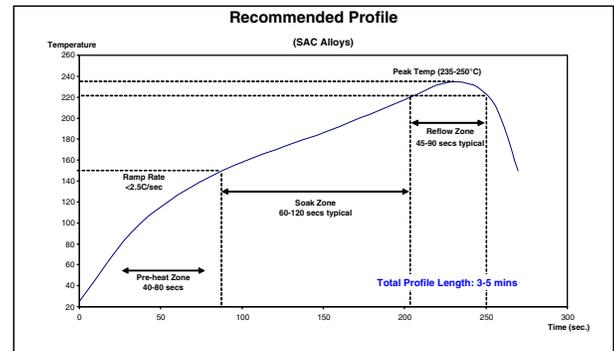
TSF-6750 is designed for dipping via slide fluxer and/or rotating drum. It can also be printed or dispensed via syringe. This flux works on flip chip, chip scale packages and flip chip bumping sites assemblies.

🔄 Printing Parameters

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

🔄 Recommended Reflow Profile

A typical convection reflow profile for TSF-6750 with Sn96.5Ag3.5, Sn99.3Cu0.7 and/or other various SnAgCu alloys is shown here. This profile is simply a guideline. Since TSF-6750 is engineered to be a versatile/robust interconnect material, other reflow profiles will also be effective. Your optimal profile may be different from the one shown due to oven type/brand, component design, fixturing and mix of defects. Please contact Kester if you need additional profiling advice.



🧼 Cleaning

TSF-6750 is a rosin based formula. The residues post reflow do not need to be removed for typical flip chip attach applications which will be subsequently undefilled or overmolded. If residue removal is required, it is recommended to use aqueous or solvent based cleaners designed for rosin based fluxes. If you need more information with regards to cleaning TSF-6750 flux or post reflow residues contact Kester Technical Support for additional information.

📦 Storage, Handling and Shelf Life

TSF-6750 should be kept at standard refrigeration temperatures, 0-10°C (32-50°F). Shelf life studies are still pending. Kester anticipates a shelf life of 6 months from the date of manufacture if the product is 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.