

## TSF-6522RH

### No-Clean Tacky Soldering Flux

#### DESCRIPTION

Kester's **TSF-6522RH** is a rosin based, no-clean tacky soldering flux formula designed to be compliant with IEC 61249-2-21 definition for halide-free materials. **TSF-6522RH** is a formula being marketed for customers familiar with Kester's TSF 6522 formula, but now must comply with new halide-free legislation. **TSF-6522RH** can be used with doctor blade, or a drum fluxer. **TSF-6522RH** can also be used in dot dispensing for BGA/PGA sites or in a rework application for surface mount packages.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

#### FEATURES & BENEFITS

- High tack values and long tack life
- Classified as ROL0 per J-STD-004B
- Can reflow in air or nitrogen environments
- Leaves bright/shiny solder joints after reflow

#### 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

**Acid Number:**

75.4 mg KOH/g of flux

Tested to J-STD-004, IPC-TM-650, Method 2.3.13

**Initial Tackiness (typical):** 100 grams

Tested to J-STD-005, IPC-TM-650, Method 2.4.44

**Halogens:**

650 ppm theoretical in the flux RoHS

**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

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

Tested to J-STD-004, IPC-TM-650, Method 2.6.3.3, B-24 coupon

**Fluorides by Spot Test:** Pass

Tested to J-STD-004, IPC-TM-650, Method 2.3.35.1

|           | Blank                    | Uncleaned              |
|-----------|--------------------------|------------------------|
| 24 Hours  | 1.26 *10 <sup>10</sup> Ω | 3.16*10 <sup>8</sup> Ω |
| 96 Hours  | 1.47*10 <sup>9</sup> Ω   | 1.84*10 <sup>8</sup> Ω |
| 168 Hours | 7.88*10 <sup>9</sup> Ω   | 5.20*10 <sup>8</sup> Ω |

**STANDARD APPLICATIONS**

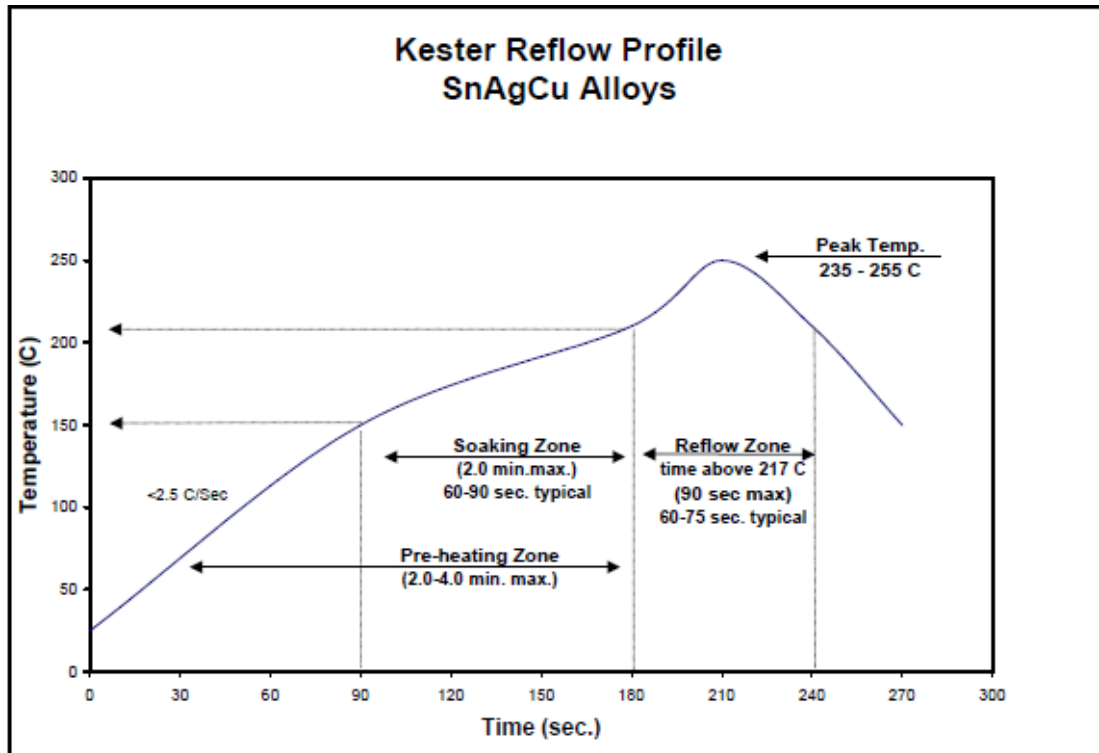
Tacky solder flux formulations are designed for stencil/screen printing, pin transfer, dot dispensing and/or syringe applications. TSF 6522RH can be used in BGA/PGA or CSP sphere/pin attachment process. TSF 6522RH can also be used for chip attach. If residue removal is desired it can be accomplished with solvent or semi-aqueous cleaning strategies. Misprinted substrates, components, stencils, and production tools can be cleaned using isopropanol. Although TSF 6522RH was designed for use with lead-free alloys, it also works well as a flux with eutectic Sn63/Pb37 solder.

**PRINTING PARAMETERS**

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

**ACTIVATION PARAMETERS**

**Temperature** Optimal activation temperatures are 150 to 210 °C (302 to 410 °F). See the Soak Zone in diagrams below.

**RECOMMENDED REFLOW PROFILE**

**CLEANING**

TSF-6522RH is a no-clean formula. The residues do not need to be removed for typical sphere attach applications. If TSF-6522RH is used in a chip attach application where a subsequent underfill will be used, better reliability will be achieved if the residues are removed. 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**

TSF-6522RH should be kept at standard refrigeration temperatures and humidity conditions, 0 to 10 °C (32 to 50 °F) and 35 to 55% RH respectively. Shelf life is 6 months from the date of manufacture when 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)

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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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