



## TSF-6522RH

### No-Clean Tacky Soldering Flux



### Product 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.

### Performance Characteristics:

- 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 Range:** 240 +/- 75 poise  
Malcom Viscometer @ 10rpm and 25°C, Kester  
Method #1W-QC-3-09

**Acid Number:** 76 +/- 5 mg KOH / gm  
Kester Method #1W-QC-G-01

**Halogens:** 650 ppm theoretical in the flux

**Tackiness (grams-force):** 96 +/- 38  
gF  
Kester Method #1W-QC-3-04

**Color:** Amber  
Kester Method #1W-QC-G-18



### Reliability Properties (typical)

**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



### Qualitative Halide Tests

**Silver Chromate:** Pass  
Tested to J-STD-004, IPC-TM-650, Method 2.3.33

**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, B-24 coupon

	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.

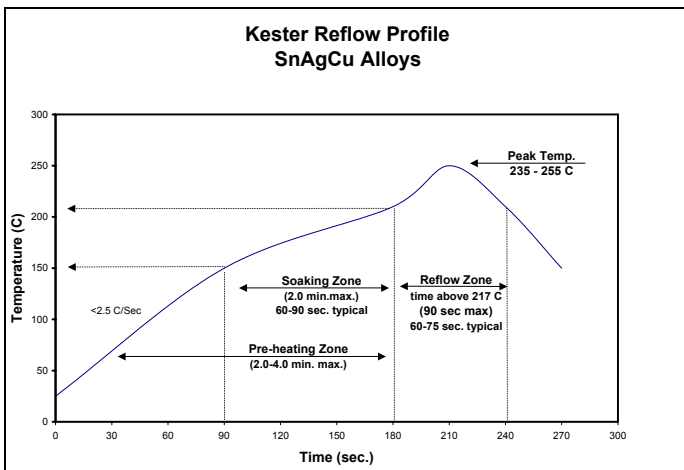
## 🔄 Printing Parameters

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

## 🔄 Activation Parameters

Temperature    Optimal activation temperatures are 150-210°C (302-410°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.

## 📦 Storage, Handling and Shelf Life

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