



R276 Solder Paste

Dispensable No-Clean Solder Paste for Leaded and Lead-free Alloys

Product Description

Kester R276 is a no-clean solder paste specifically designed for optimal characteristics in all types of dispensing applications. R276 is available in leaded and lead-free alloys. The flow characteristics of R276 provide for excellent dispensing characteristics with a wide range of needle diameters.

Performance Characteristics:

- Available with leaded and lead-free alloys
- Compatible with Kester EP256 stenciling solder paste
- Classified as ROL0 per J-STD-004
- Compliant to Bellcore GR-78

Standard Applications:

For Dispensing:
 86% Metal for -325+500 mesh
 86% Metal for -400+500 mesh

RoHS Compliance

This product meets the requirements of the Restriction of Hazardous Substances (RoHS) Directive. Additional RoHS information is located at <https://www.kester.com/downloads/environmental>.

Physical Properties

Data given for Sn96.5Ag3.0Cu0.5 86% metal, -325+500 mesh)

Viscosity (typical): 650 poise
 Malcom Viscometer @ 10rpm and 25°C

Initial Tackiness (typical): 30 grams
 Tested to J-STD-005, IPC-TM-650, Method 2.4.44

Slump Test: Pass
 Tested to J-STD-005, IPC-TM-650, Method 2.4.35

Solder Ball Test: Preferred
 Tested to J-STD-005, IPC-TM-650, Method 2.4.43

Wetting Test: Pass
 Tested to J-STD-005, IPC-TM-650, Method 2.4.45

Reliability Properties

Copper Mirror Corrosion: Low
 Tested to J-STD-004, IPC-TM-650, Method 2.3.3

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

Surface Insulation Resistivity (SIR) (typical): Pass
 Tested to J-STD-004, IPC-TM-650, Method 2.6.3.3

| | Blank | R276 |
|-------|------------------------|-----------------------|
| Day 1 | 1.0*10 ¹⁰ Ω | 9.8*10 ⁸ Ω |
| Day 4 | 1.3*10 ¹⁰ Ω | 1.6*10 ⁹ Ω |
| Day 7 | 1.3*10 ¹⁰ Ω | 1.1*10 ⁹ Ω |

Availability

R276 is available in Sn63Pb37, Sn96.5Ag3.0Cu0.5, Sn43Pb43Bi14, Sn10Pb88Ag2, Sn95.5Ag3.8Cu0.7 and Sn62Pb36Ag2 alloys with the recommended type 3 powder mesh. For specific packaging information, please refer to www.kester.com.

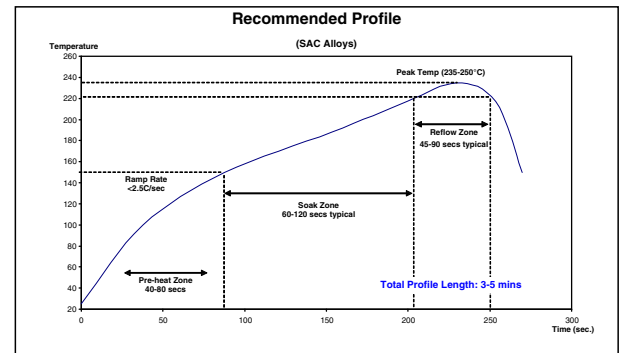
Printing Parameters

| | |
|----------------------|--|
| Needle Diameter | Type 3 powder may be used with needle sizes down to 22 gauge |
| Dispense Speed | Capable of at least 4 dots per second |
| Temperature/Humidity | Optimal ranges are 21-25°C (70-77°F) and 35-65% RH |

Recommended Reflow Profile

The recommended reflow profile for R276 made with SAC alloys is shown here. This profile is simply a guideline. Since R276 is a highly active solder paste, it can solder effectively over a wide range of profiles. Your optimal profile may be different from the one shown based on your oven, board and mix of defects. Please contact Kester if you need additional profiling advice.

NOTE: The peak temperature for leaded profile should be 205-215°C degrees.



Cleaning

R276 is a no-clean formula. The residues do not need to be removed for typical applications. Although R276 is designed for no-clean applications, its residues can be easily removed using automated cleaning equipment (in-line or batch) with a variety of readily available cleaning agents. Call Kester Technical Support for details.

Storage and Shelf Life

Refrigeration is the recommended optimum storage condition for solder paste to maintain consistent viscosity, reflow characteristics and overall performance. R276 should be stabilized at room temperature prior to dispensing. This can be accomplished by setting the syringe out at room temperature for 1 hour. R276 should be kept at standard refrigeration conditions, 0-10°C (32-50°F). Do not place it on a hot surface. Shelf life is 6 months from date of manufacture and held at 0-10°C (32-50°F). Please contact Kester Technical Support if you require additional advice with regard storage and handling of this material.

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. Safety Data Sheets are available at <https://www.kester.com/downloads/sds>.