R276 Solder Paste

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

Product Description

Kester R276 Solder Paste 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 @ 10 rpm 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 Resistance (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

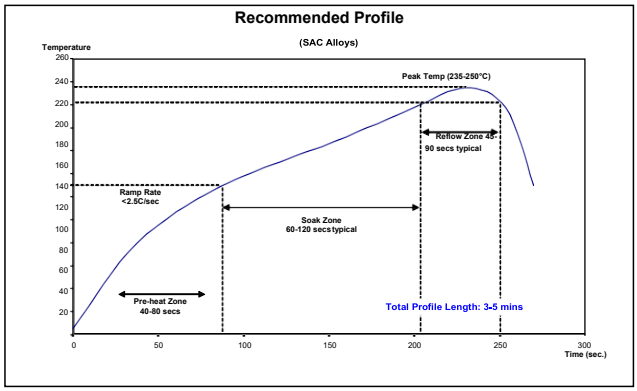
Availability

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 https://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 to 25 °C (70 to 77 °F) and 35 to 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 to 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.

Recycling Services

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or link here.

Storage, Handling 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 kept at standard refrigeration conditions, 0 to 10 °C (32 to 50 °F). 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. Do not place it on a hot surface. Shelf life is 6 months from date of manufacture and when held at 0 to 10 °C (32 to 50 °F). Please contact Kester Technical Support if you require additional advice with regard to 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 this link.

Contact Information

To confirm this document is the most recent version, please contact Assembly@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