EP256 Solder Paste
No-Clean

Product Description

EP256 is a no-clean, air or nitrogen reflowable, solder paste specifically designed for maximum robustness in reflow profiling and stencil printing. EP256 has the widest possible reflow processing window. EP256 is capable of stencil printing downtimes of up to 90 minutes with an effective first print down to 20 mils. EP256 is a solder paste formula that maintains its activity and printing characteristics for up to 8 hours without any shear thinning.

Performance Characteristics:

- Stable wetting behavior over a wide range of profiles
- Capable of 90 minute break times in printing
- High print speeds to 200+mm/sec (8+ in/sec)
- Compatible with enclosed print head systems
- Excellent printing characteristics to 0.4mm (16 mil) pitch with Type 3 powder
- High activity on all substrates, including OSPs
- Capable of off-pad printing with no solder balls after reflow
- Stencil life: 8+ hours (process dependent)
- Scrap is reduced due to less paste dry out
- Stable tack over 8+ hours
- Classified as ROL0 per J-STD-004B
- Compliant to Bellcore GR-78

Standard Applications:
Stencil Printing: 90% Metal
Enclosed Head Printing: 90% Metal

RoHS Compliance

Kester does not determine any applicable Restriction of Hazardous Substances (RoHS) exemptions for our lead containing products at the user level.

Physical Properties

Data given for Sn63Pb37, 90% metal, -325+500 mesh

Viscosity (typical): 1400 poise
Malcom Viscometer @ 10rpm and 25°C

Initial Tackiness (typical): 40 grams
Tested to Kester Method TW-QC-3-04

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

Solder Ball Test: Pass
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

Surface Insulation Resistance (SIR):
Tested to J SIR J-STD-004B, IPC-TM-650, Method 2.6.3.7

<table>
<thead>
<tr>
<th></th>
<th>Blank</th>
<th>EP256</th>
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</thead>
<tbody>
<tr>
<td>Day 1</td>
<td>1.0*10^6 Ω</td>
<td>9.8*10^5 Ω</td>
</tr>
<tr>
<td>Day 4</td>
<td>1.3*10^6 Ω</td>
<td>1.6*10^5 Ω</td>
</tr>
<tr>
<td>Day 7</td>
<td>1.3*10^7 Ω</td>
<td>1.1*10^6 Ω</td>
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Reliability Properties

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

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

Silver Chromate: Pass
Tested to J-STD-004B, 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): Pass
Tested to J SIR J-STD-004B, IPC-TM-650, Method 2.6.3.7
**Storage, Handling and Shelf Life**

Refrigeration is the recommended optimum storage condition for solder paste to maintain consistent viscosity, reflow characteristics and overall performance. EP256 should be stabilized at room temperature prior to printing. EP256 should be kept at standard refrigeration conditions, 0-10°C (32-50°F). Contact Kester Technical Support if you require additional advice with regard storage and handling of this material. Shelf life is 6 months from the date of manufacture when handled properly 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.