



FCT ASSEMBLY

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Technical Bulletin RM822 SOLDER PASTE

RM822 Type RMA Solder Paste is a modified rosin based solder paste, which allows a previously unseen level of repeatability and consistency. This paste offers excellent open time, extended abandon time and good soldering activity in high temperature applications.

Attributes

- ROL1 to ANSI/J-STD-004
- Enhanced activity for tough to solder surfaces and components
- Excellent tack performance and printer open time
- Extended “between-print” abandon time
- Excellent for high melting point solder applications

Performance

RM822 solder pastes may be supplied with powder made from most solder alloys in the FCT product range. The most common alloys used are Pb93B (2.5S) and Pb94B, conforming to the purity requirements of J-STD-006. Minimum order requirements may apply to certain alloys and powder particle sizes.

The performance of solder paste depends in part on the metal content, solder alloy and the solder particle size range. Recommended metal contents are 87% for pin transfer and 90% for printing applications. Increasing metal content reduces the tendency to slump and reduces the tack life of the solder paste, while the solder balling performance improves.

Performance Parameters	Value
Stencil Life (20C @ 45% RH)	24 Hours
Tack Life	8 Hours
Tack Force	1.8 grams/mm ²
Abandon Time	
Pitch	
20 mil and greater	>4 hours
16 mil and less (10 mil aperture)	2 hour
(8 mil or less aperture)	1 hour
Flux Activity (per ANSI/J-STD-006)	ROL1
Copper Mirror (per IPC-J-STD-004)	Pass
Copper Plate Corrosion (per ANSI/J-STD-004)	Pass
Typical SIR, IPC @ 96 hours (per IPC-J-STD-004)	Pass (>2 X 10 ⁻⁹ ohms)
Typical SIR, IPC @ 168 hours (per IPC-J-STD-004)=	Pass (2 X 10 ⁻⁹ ohms)

Processing Parameters

Refrigeration and storage: It is recommended to store RM822 at 5-10⁰C. The paste should be removed from cold storage a minimum of 8 hours in the unopened container prior to use. If the paste does not reach room temperature, it may stick to the stencil, not deposit onto the SMT pads, de-wet pads during reflow, outgas during reflow, or produce solder balls. Avoid direct sunlight.

Handling and shelf life: The optimum temperature and humidity are 75⁰F and 60% or below respectively. Provided RM822 solder paste is stored tightly sealed in the original container at 5-10⁰C, a minimum shelf life of 6 months can be expected. Air shipment is recommended to minimize the time that containers are exposed to higher temperatures.

Printing: RM822 solder paste is currently available for stencil printing down to 16 mil(0.4mm) pitch devices with type 3 powder (-325+500 mesh).

Cleaning: If cleaning is required, use a semi-aqueous solvent or DI water with a saponifier such as Florida Cirtech RA2000 (saponifier concentration 4-6% @ 120-150⁰F).

Reflow: Reflow should be performed at 35-40⁰C above the liquid temperature of the alloy (depending on the type of board). This temperature should be maintained for 30-45 seconds. Profiles should have less than a 3-minute preheat time above 260⁰F(130⁰C).

Health & Safety: This product, during handling or use, may be hazardous to health or the environment. Read the Material Safety Data Sheet and warning label before using this product.

Packaging:

RM822 Solder paste is available in:

- 500gram or 250 gram plastic jar.
- 1.4Kilogram, 500 gram or 250 gram cartridge for direct application.

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