



TECHNICAL DATA SHEET

CATEGORY: **RMA SOLDER PASTE**
 NAME: **RMA-201**
 ALLOY: Au80/Sn20

FEATURES

- 8 HOUR STENCIL LIFE
- EXCELLENT WETTING
- LARGE PROCESS WINDOW
- SLUMP RESISTANCE
- 6 HOURS TACK TIME
- AQUEOUS CLEAN WITH SAPONIFIER

* Passes IPC, product testing results available upon request

DESCRIPTION

RMA-201 is a mildly activated, pure gum rosin solder paste that is QQS571-E, QPL approved. The RMA-201 formulation is designed specifically to allow reflow at higher than normal temperatures. Post-Process residues have undergone testing to insure high insulation resistance, and may be left on the PCB without degradation. Flux activity is adequate to wet most metal surfaces used on electronic circuit boards. RMA-201 has a wide process window, and will accommodate a large variety of environments and process applications. This product performs well in continuous production, offering good slump resistance, high tack, and low post-process residues.

STANDARD PASTE COMPOSITION

Application Method	IPC Powder Size	Metal Load
Standard Stencil Printing	3	90%
Fine Pitch Stencil Printing	5	89.5%
Ultra-Fine Pitch Stencil Printing	5	89%
Dispensing syringes	3	85.5%

Note: These are typical starting guidelines. To achieve optimal performance, actual metal load and particle size may vary per process, application, and environment.

HANDLING

- RMA201 has a refrigerated shelf life of 1 year at 4°C or 40°F, and non-refrigerated shelf life of 6 months at 22°C or 70°F. Do not freeze this product.
- Allow the solder paste to completely warm naturally to ambient temperature (8 hours is recommended) prior to breaking seal for use.
- Mix the product lightly and thoroughly for 1 to 2 minutes to ensure even distribution of any separated material resulting from storage.
- Do not store new and used paste in the same container. Re-seal any opened containers while not in use.
- Replace the internal plug in conjunction with the cap of the 500 gram jar to ensure the best possible seal.

PRINTER SETUP

Suggested starting parameters for your screen printer. Some assumptions were made as to the printer types used in modern applications. Adjustments will vary between equipment, application and facility environment.

SNAP-OFF DISTANCE	ON CONTACT (0.00")	SQUEEGEE PRESSURE	1-1.5 LBS/IN. OF BLADE
PCB SEPARATION DISTANCE	.030-.050"	SQUEEGEE STROKE SPEED	.5 - 6 IN/SEC *
PCB SEPARATION SPEED	MEDIUM	* DEPENDENT ON PCB AND PAD DESIGNS	

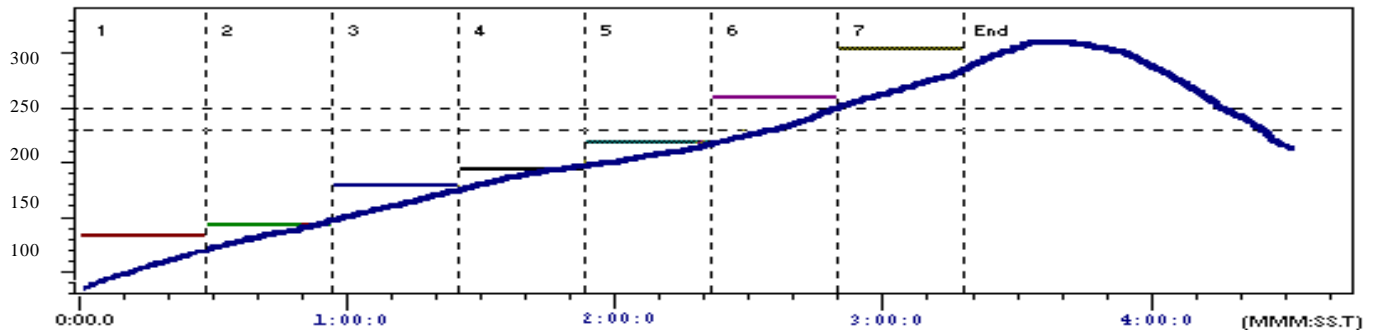
PASTE APPLICATION

- Apply sufficient paste to the stencil to allow a smooth, even roll during the print cycle. A bead diameter of 1/2 to 5/8 inch is normally sufficient to begin.
- Apply small amounts of fresh solder paste to the stencil at frequent, controlled intervals to maintain paste chemistry and workable properties.
- Cleaning of your stencil will vary according to the application; however, it can be accomplished using AIM DJAW stencil cleaner. Use DJAW in moderation and remove any excess cleaner from stencil.

PLACEMENT INFORMATION

RMA-201 provides the necessary tack time/force for today's high-speed placement equipment. Ensuring proper support of PCBs during assembly and handling will enhance product performance and reliability.

REFLOW DATA



RATE of RISE 1-2°C / SEC MAX	PRE-HEAT RAMP TO 150°C	CONTINUE THROUGH 150 - 175°C	TO PEAK TEMP 300°C ± 5°C	TIME ABOVE 281° C	COOLDOWN £ 4°C
	£ 146 SECONDS	10 - 30 SECONDS		60 ± 15 SECONDS	

PASTE TECH-TIPS

PROBLEM	POTENTIAL CAUSE
• BRIDGING:	EXCESS SOLDER DEPOSITION, COMPONENT ALIGNMENT, PAD/COMPONENT SOLDERABILITY
• LEACHING:	EXCESSIVE REFLOW TIME OR TEMPERATURE
• SOLDER BALLS:	LOW PREHEAT TEMPERATURE, EXCESSIVE HEAT RAMP-UP, OXIDIZED PASTE, EXCESS PASTE
• TOMBSTONING:	EXCESSIVE HEAT RATE, COMPONENT TO PAD SIZE MISMATCH, PASTE REGISTRATION
• WHITE RESIDUE:	SOLDER PASTE OXIDATION, EXCESSIVE TIME AT TEMPERATURE
• DISCOLORED JOINT:	PASTE OXIDATION, BOARD/COMPONENT CONTAMINATION, EXCESSIVE SOAK TIME
• BEADING:	EXCESS SOLDER PASTE, COMPONENT PLACEMENT

CLEANING

RMA 201 can be cleaned if necessary, with saponified tap water. We recommend AIMTERGE 520; however, deionized water is recommended for the final rinse. A temperature of 100 - 150°F is sufficient for removing any residues. An in-line or other pressurized spray cleaning system is suggested, but is not required.

SAFETY

- Use with adequate ventilation and proper personal protective equipment.
- Refer to the accompanying **Material Safety Data Sheet** for any specific emergency information.
- Do not dispose of any lead-containing materials in non-approved containers.

The information contained herein is based on data considered accurate and is offered at no charge. Product information is based upon the assumption of proper handling and operating conditions of 72°F and 35% rH. No warranty is expressed or implied regarding the accuracy of this data. Liability is expressly disclaimed for any loss or injury arising out of the use of this information or the use of any materials designated.

07.24.03

Manufacturing and Distribution Worldwide

Americas +1-401-463-5605 • Europe +44-1737-222-258 • Asia-Pacific +852-2649-7183 • info@aimsolder.com • www.aimsolder.com