

RMA258-15R Sn63Pb37 SOLDER PASTE

FEATURES

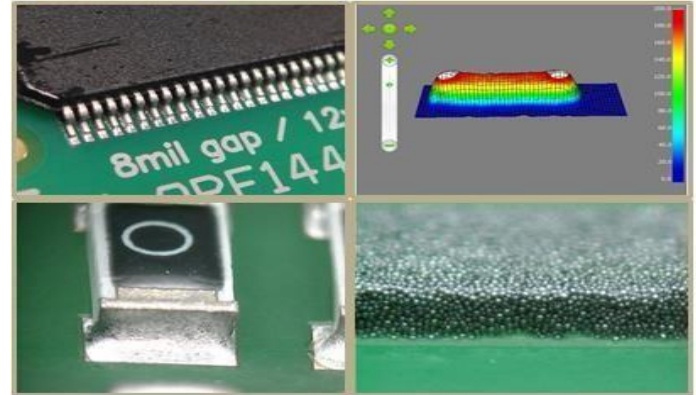
- Long Pause-to-Print Capabilities
- Excellent Wetting. Even Leadless Devices
- Enhances Fine Print Definitions
- Exceptional Reflow During Long, Hot Profiles
- ROL0 per IPC J-STD-004
- Reduced Voiding

DESCRIPTION

RMA258-15R Sn63Pb37 rosin-based solder paste has been developed for assemblers of high reliability and military electronics. RMA258-15R Sn63Pb37 offer long pause-to-print capabilities even on miniaturized devices. RMA258-15R Sn63Pb37 reduces voiding on BGA/BTC and eliminates head-in-pillow defects. Powerful activators in RMA258-15R produce bright, smooth and shiny solder joints. RMA258-15R Sn63Pb37 is capable of withstanding long hot reflow profiles common to high mass assemblies such as backplanes and power management. RMA258-15R Sn63Pb37 residues have been formulated for removal in vapor degreaser, solvent and saponified wash systems.

ALLOY COMPOSITION-- ISO 9453

PROPERTIES	VALUE	PROPERTIES	VALUE
MAIN INGREDIENTS		IMPURITIES	
Sn	62.5 to 63.5%	Cu	0.08% Max
Pb	Rem	Sb	0.2% Max
		Bi	0.1% Max
		Au	0.05% Max
		In	0.1% Max
		Ag	0.1% Max
		As	0.03% Max
		Cd	0.002% Max
		Fe	0.02% Max
		Ni	0.01% Max
		Zn	0.001% Max



HANDLING & STORAGE

Alloy	Parameter	Time	Temperature
Lead Free	Sealed Refrigerated Shelf Life	1 Year	0°C-12°C (32°F-55°F)
Lead Free	Sealed Unrefrigerated Shelf Life	6 Months	< 25°C (< 77°F)
Leaded	Sealed Refrigerated Shelf Life	9 Months	0°C-12°C (32°F-55°F)
Leaded	Sealed Unrefrigerated Shelf Life	4 Months	< 25°C (< 77°F)

Do not add used paste to unused paste. Store used paste separately; keep unused paste tightly sealed with internal plug or end cap in place. After opening, solder paste shelf life is environment and application dependent. See AIM's paste handling guidelines for further information. Alloy and storage conditions may affect shelf life. Please refer to RMA258-15R Sn63Pb37 Certificate of Analysis for product specific information.

CLEANING

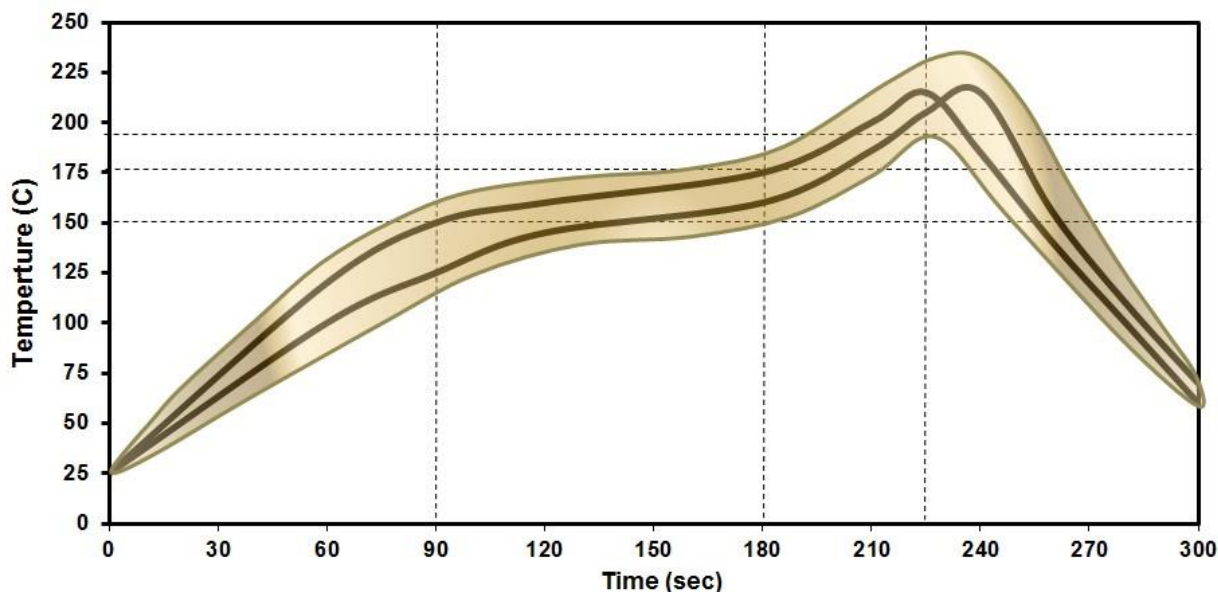
Periodic cleaning of the stencil during production is recommended to prevent any paste from being deposited in unwanted areas of the board. Without stencil cleaning, solder balling will increase. We recommend a periodic dry wipe (every 5 to 10 boards) with an occasional PAI- IPA/Thinner Wipe (every 15 to 25 boards). When running fine pitch boards, the cleaning may need to become more frequent

Post-Reflow Flux Residue: RMA258-15R Sn63Pb37 residues can remain on the assembly after reflow and do not require cleaning

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REFLOW PROFILE- IPC-7530A

The following is a recommended profile for a forced air convection reflow oven. The melting temperature of the solder, the heat resistance of the components, and the characteristics of the PCB (i.e. density, thickness, etc.) determine the actual reflow profile.



RECOMMENDED REFLOW PARAMETERS (Sn63Pb37)

	Leaded BGA	Lead-Free BGA
Pre-Heat Zone (40°C ~150°C)	Ramp rate < 3.0°C/second。	Ramp rate < 3.0°C/second。
	Pre-heat time (60~90 sec)	Pre-heat time (60~90 sec)
Soaking Zone (150°C ~183°C)	Time: 30~90 second	Time: 30~90 second
Reflow Zone (>183°C)	Peak temperature 210°C~220°C。	Peak temperature 220°C~235°C。
	Reflow time 30~90 second	Reflow time 30~90 second
Cooling zone	Ramp down rate during cooling 1-4°C/sec	Ramp down rate during cooling 1-4°C/sec

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PRINTING

Recommended Initial Printer Settings – Dependent on PCB and Pad Design	
Parameter	Recommended Initial Settings
Squeegee Pressure	0.9 -1.5 lbs/inch of blade
Squeegee Speed	0.5 – 6 inches/second
Snap-off Distance	On Contact 0.00 mm
PCB Separation Distance	0.75 - 2.0 mm
PCB Separation Speed	3 - 20 mm/second

TEST DATA SUMMARY

Name	Test Method	Results	
IPC Flux Classification	J-STD-004	ROL0	
Name	Test Method	Typical Results	Image
Copper Mirror	J-STD-004 3.4.1.1 IPC-TM-650 2.3.32	LOW	
Corrosion	J-STD-004 3.4.1.2 IPC-TM-650 2.6.15	PASS	
Qualitative Halides, Silver Chromate	J-STD-004 3.5.1.1 IPC-TM-650 2.3.33	PASS	
Qualitative Halides, Fluoride Spot	J-STD-004 3.5.1.2 IPC-TM-650 2.3.35.1	No Fluoride	
Surface Insulation Resistance	J-STD-004A 3.4.1.4 IPC-TM-650 2.6.3.3	PASS	
Flux Solids, Nonvolatile Determination	J-STD-004 3.4.2.1 IPC-TM-650 2.3.34	95.7% Typical	
Acid Value Determination	J-STD-004B 3.4.2.2 IPC-TM-650 2.3.13	133 mg KOH/ g flux Typical	

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Name	Test Method	Typical Results	Image
Flux Specific Gravity Determination	J-STD-004 3.4.2.3 ASTM D-1298	3.68 Typical	
Viscosity	J-STD-005A 3.5.1 IPC-TM-650 2.4.34	Print/Dispense versions available	
Visual	J-STD-004 3.4.2.5	Gray, Smooth, Creamy	
Slump	J-STD-005A 3.6 IPC-TM-650 2.4.35	PASS	
Solder Ball	J-STD-005A 3.7 IPC-TM-650 2.4.43	PASS	
Tack	J-STD-005A 3.8 IPC-TM-650 2.4.44	48.8 g Typical	
Wetting	J-STD-005A 3.9 IPC-TM-650 2.4.45	PASS	

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