

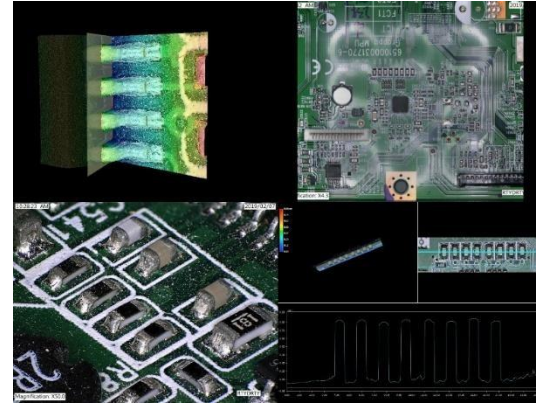
## NC258 Sn63/Pb37 NO-CLEAN SOLDER PASTE

### FEATURES

- Minimal Transparent Residue
- Powerful Printing
- Excellent Wetting and Fluidity
- Specially designed for LED Industry
- High-Quality Solder Joint & Superior Solderability
- 8+ Hour Shelf Life while Printing

### DESCRIPTION

NC258 Sn63/Pb37 No-Clean Solder Paste delivers next-level performance for advanced SMT applications, especially when used with T3, T4, and finer mesh alloy powders. Engineered for today's Electronics devices. Its advanced activator system minimizes wetting-related defects such as head-in-pillow (HiP) and produces smooth, shiny solder joints. NC258 Sn63/Pb37 is also proven to reduce BGA and bottom termination component (BTC) voiding to as low as <5% and <10% respectively. Additionally, it meets stringent automotive and high-reliability standards, passing all solder paste's criteria.



### 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

PARAMETER	TIME	TEMPERATURE
Scaled Refrigerated Shelf Life	6 months*	0°C-12°C (32°F-55°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 Certificate of Analysis for product specific information.

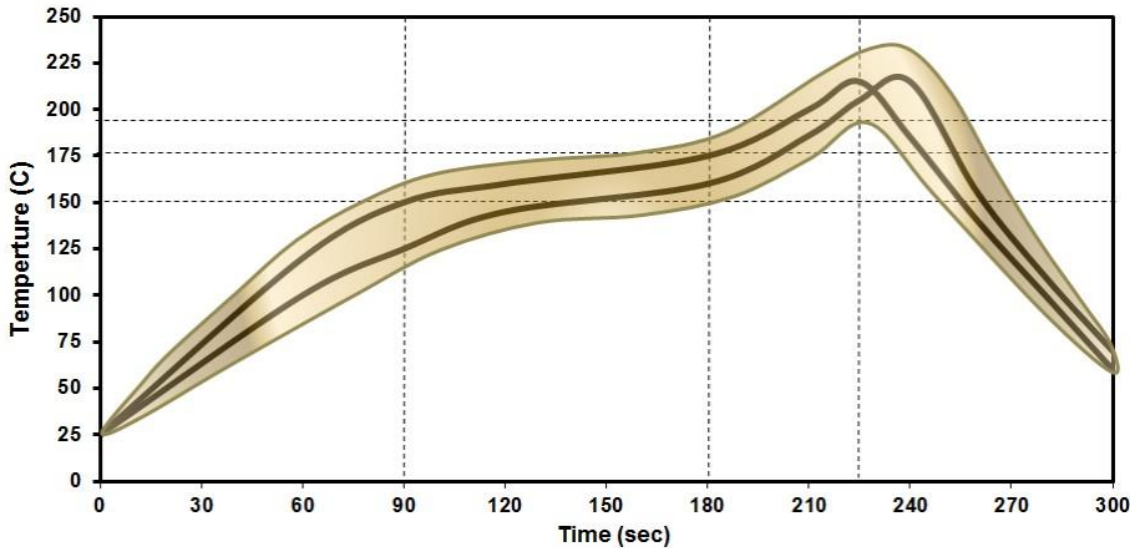
### CLEANING

Perform a dry wipe every 5 to 10 boards. Perform a wet wipe using PAI-IPA or stencil cleaner every 15 to 25 boards. For fine-pitch components, increase the cleaning frequency as needed to maintain print accuracy. After completing a print job, remove all excess solder paste from the stencil using a spatula or a scraper. Perform a thorough wet clean of the entire stencil using PAI-IPA (Thinner) or appropriate solvent. Visually inspect apertures for clogs or residue. Allow the stencil to fully dry before storing in a clean, dry environment.

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**REFLOW PROFILE**

The following is a recommended profile for a forced air convection reflow oven with a minimum of 7 zones (top and bottom). 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 (Sn63/Pb37)**

	<b>Leaded BGA</b>	<b>Lead-Free BGA</b>
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


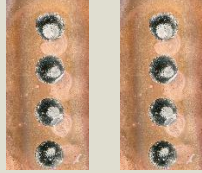
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## PRINTING



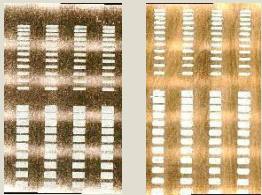

### RECOMMENDED INITIAL PRINTER SETTINGS - DEPENDENT ON PCB AND PAD DESIGN

Parameter	Recommended Initial Settings
Squeegee Pressure	0.5 – 1.0kg/25mm
Squeegee Speed	13 – 152 mm/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	JIS Z 3197	No breakthrough Low Activity	
Corrosion	JIS Z 3197	No Corrosion	
Quantitative Halides	IPC-TM-650 JIS Z 3197	PASS	
Qualitative Halides, Silver Chromate	JIS Z 3197	PASS	

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NAME	TEST METHOD	TYPICAL RESULTS	IMAGE
Qualitative Halides, Spot Test	JIS Z 3197	PASS	
Surface Insulation Resistance (SIR)	JIS Z 3197	PASS	
Viscosity	JIS Z 3284	100-300 Pa.S	
Visual	J-STD-004	Gray, Smooth, Creamy	
Slump	JIS Z 3284	PASS	
Solder Ball	JIS Z 3284	Preferred	

For more information, please visit our website at [www.pai-aimsolder.com](http://www.pai-aimsolder.com), or write us on support@pai-aimsolder.com

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