

## NC273LT SOLDER PASTE

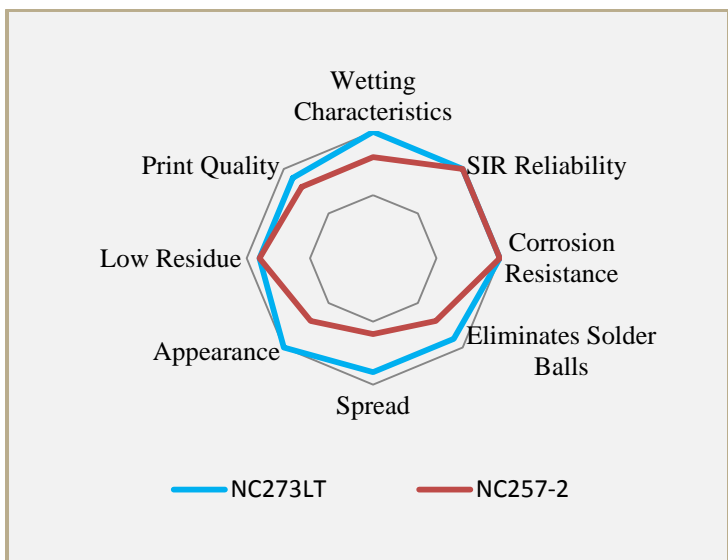
### FEATURES

- Designed for Low Temperature Applications
- RoHS Compliant
- Improved Wetting for Bismuth Alloys
- Minimizes Solder Balling
- >8 Hour Stencil Life

### DESCRIPTION

The revolutionary activator system in AIM's NC273LT low temperature solder paste improves the wetting performance of bismuth alloys to RoHS compliant plating and surface finishes. NC273LT provides long stencil life, excellent transfer efficiencies and minimizes solder balling common to high bismuth alloys. When thermal exposure during the assembly process is a limitation, NC273LT is an excellent RoHS compliant replacement. Bismuth bearing solder pastes reduce peak reflow temperature requirements to as low as 170°C - 175°C (340°F - 350°F). AIM's NC273LT solder paste formula with bismuth containing alloys can provide an assembler with an innovative solution when temperature sensitivity is paramount.

### CHARACTERISTICS



### HANDLING & STORAGE

Parameter	Time	Temperature
Refrigerated Shelf Life	3 Months	4°C (40°F) to 12°C (55°F)
Unrefrigerated Shelf Life	1 week	< 78°F (25°C)

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. See AIM's paste handling guidelines for further information.

### CLEANING

**Pre-Reflow:** AIM DJAW-10 effectively removes NC273LT solder paste from stencils while in process. DJAW-10 can be hand applied or used in under stencil wipe equipment. DJAW-10 will not dry NC273LT and will enhance transfer properties. Do not over-apply DJAW-10. Do not apply DJAW-10 to stencil topside. Isopropanol (IPA) is not recommended in process, but may be used as a final stencil rinse.

**Post-Reflow Flux Residue:** NC273LT residues can remain on the assembly after reflow and do not require cleaning. Where cleaning is mandated, AIM has worked closely with industry partners to ensure that NC273LT residues can be effectively removed with common defluxing agents. Contact AIM for cleaning compatibility information.




## REFLOW PROFILE

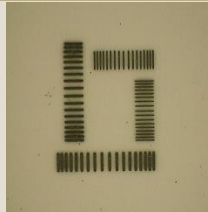

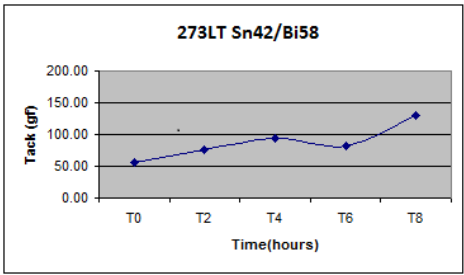
Detailed profile information may be found at <http://www.aimsolder.com/reflow-profile-supplements>. Contact AIM for additional information.

## 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 3.2.3.1	ROL0	
IPC Flux Classification	J-STD-004B 3.3.1.2.1	ROL1	
Name	Test Method	Typical Results	Image
Copper Mirror	J-STD-004B 3.4.1.1 IPC-TM-650 2.3.32	LOW	
Corrosion	J-STD-004B 3.4.1.2 IPC-TM-650 2.6.15	PASS	
Quantitative Halides	J-STD-004B 3.4.1.3 IPC-TM-650 2.3.28.1	Br: 0.23% Cl: 0.0% Typical	
Qualitative Halides, Silver Chromate	J-STD-004B 3.5.1.1 IPC-TM-650 2.3.33	PASS	

Name	Test Method	Typical Results	Image												
Qualitative Halides, Fluoride Spot	J-STD-004B 3.5.1.2 IPC-TM-650 2.3.35.1	No Fluoride													
Surface Insulation Resistance	J-STD-004B 3.4.1.4 IPC-TM-650 2.6.3.7	PASS													
Flux Solids, Nonvolatile Determination	J-STD-004B 3.4.2.1 IPC-TM-650 2.3.34	3.17 Typical													
Acid Value Determination	J-STD-004B 3.4.2.2 IPC-TM-650 2.3.13	159.37 mg KOH/ g flux													
Flux Specific Gravity Determination	J-STD-004B 3.4.2.3 ASTM D-1298	0.9775													
Viscosity	J-STD-004B 3.4.2.4 IPC-TM-650 2.4.34	750kcps Typical													
Visual	J-STD-004B 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	55.3gf	 <table border="1"> <caption>273LT Sn42/Bi58 Tack Data</caption> <thead> <tr> <th>Time (hours)</th> <th>Tack (gf)</th> </tr> </thead> <tbody> <tr> <td>T0</td> <td>~50</td> </tr> <tr> <td>T2</td> <td>~70</td> </tr> <tr> <td>T4</td> <td>~90</td> </tr> <tr> <td>T6</td> <td>~75</td> </tr> <tr> <td>T8</td> <td>~130</td> </tr> </tbody> </table>	Time (hours)	Tack (gf)	T0	~50	T2	~70	T4	~90	T6	~75	T8	~130
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T2	~70														
T4	~90														
T6	~75														
T8	~130														

Name	Test Method	Typical Results	Image
Wetting	J-STD-005A 3.9 IPC-TM-650 2.4.45	PASS	