Solder plus Support

NC259 NO CLEAN SOLDER PASTE

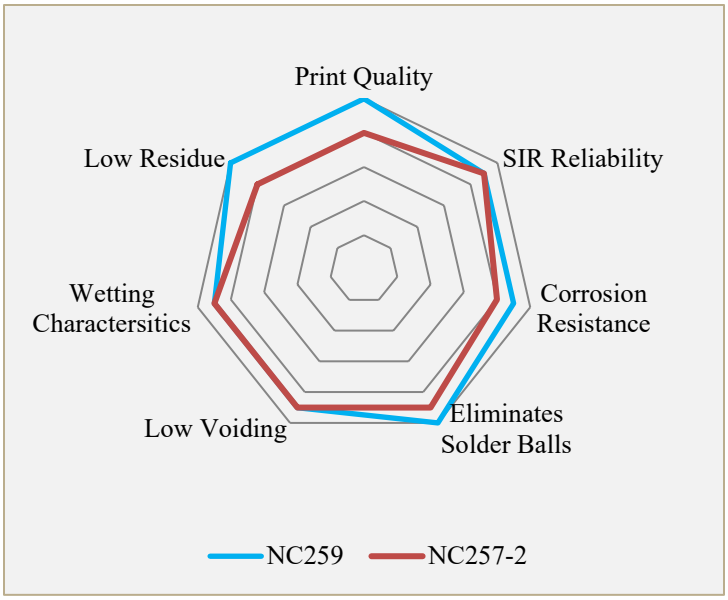
FEATURES

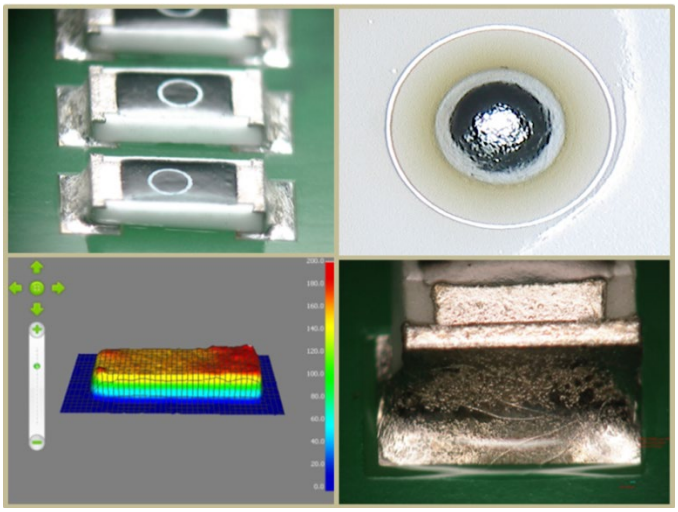
- Low Voiding
- Reduced Head-in-Pillow
- Long Pause-to-Print Capabilities
- Precise Fine Feature Print Definition
- Excellent Wetting with No/Low-Silver
- Extremely Low Residues
- Print Speeds up to 6”/Sec (150mm/Sec)

DESCRIPTION

AIM’s NC259 solder paste has been developed for use with no/low-silver alloys while retaining the performance of high-silver SAC alloys. NC259 demonstrates pause-to-print capabilities >8 hours while providing high transfer efficiency and precise print definition. The NC259 activator system promotes wetting even in the absence of silver and tolerates peak reflow temperatures as high as 260°C. When combined with SN100C®, NC259 produces bright, smooth solder joints and exhibits low voiding on both BGA and BTC packages.

CHARACTERISTICS





HANDLING & STORAGE

PARAMETER	TIME	TEMPERATURE
Refrigerated Shelf Life	9 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. See AIM’s paste handling guidelines for further information. Alloy and storage conditions may affect shelf life. Please refer to NC259 Certificate of Analysis for product specific information.

CLEANING

Pre-Reflow: AIM DJAW-10 effectively removes NC259 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 NC259 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: NC259 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 NC259 residues can be effectively removed with common defluxing agents. Contact AIM for cleaning compatibility information

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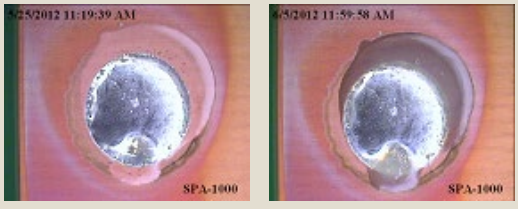
REFLOW PROFILE

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	ROL0	
IPC Flux Classification	J-STD-004B 3.3.1	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	Before After 
Quantitative Halides	J-STD-004B 3.4.1.3 IPC-TM-650 2.3.28.1	PASS	

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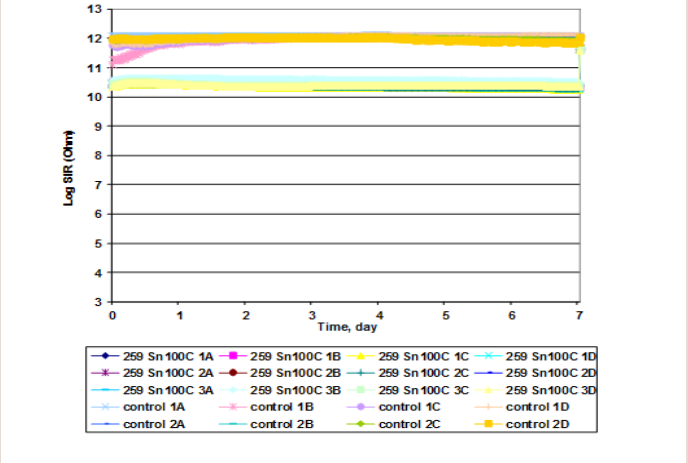
NAME	TEST METHOD	TYPICAL RESULTS	IMAGE
Qualitative Halides, Silver Chromate	J-STD-004B 3.5.1.1 IPC-TM-650 2.3.33	PASS	
Qualitative Halides, Fluoride Spot	J-STD-004B 3.5.1.2 IPC-TM-650 2.3.35.1	No Fluoride	
Surface Insulation Resistance	J-STD-004B 3.4.1.4 IPC-TM-650 2.6.3.7	PASS	
Electrochemical Migration	J-STD-004B 3.4.1.5 IPC-TM-650 2.6.14.1	PASS	
Flux Solids, Nonvolatile Determination	J-STD-004B 3.4.2.1 IPC-TM-650 2.3.34	95.6% Typical	
Acid Value Determination	J-STD-004B 3.4.2.2 IPC-TM-650 2.3.13	150 +/- 4 mg KOH/ g flux Typical	
Flux Specific Gravity Determination	J-STD-004B 3.4.2.3 ASTM D-1298	3.70 Typical	
Viscosity	J-STD-005A 3.5.1 IPC-TM-650 2.4.34	500 – 1000 Kcps	
Visual	J-STD-004B 3.4.2.5	Gray, Smooth, Creamy	
Slump	J-STD-005A 3.6 IPC-TM-650 2.4.35	PASS	

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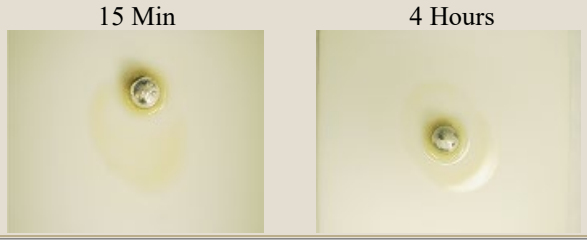
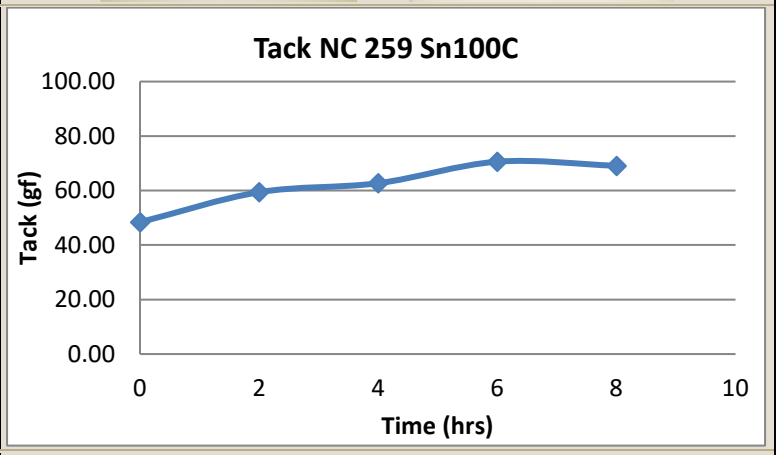
NAME	TEST METHOD	TYPICAL RESULTS	IMAGE
Solder Ball	J-STD-005A 3.7 IPC-TM-650 2.4.43	PASS	
Tack	J-STD-005A 3.8 IPC-TM-650 2.4.44	48g Typical	
Wetting	J-STD-005A 3.9 IPC-TM-650 2.4.45	PASS	

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