

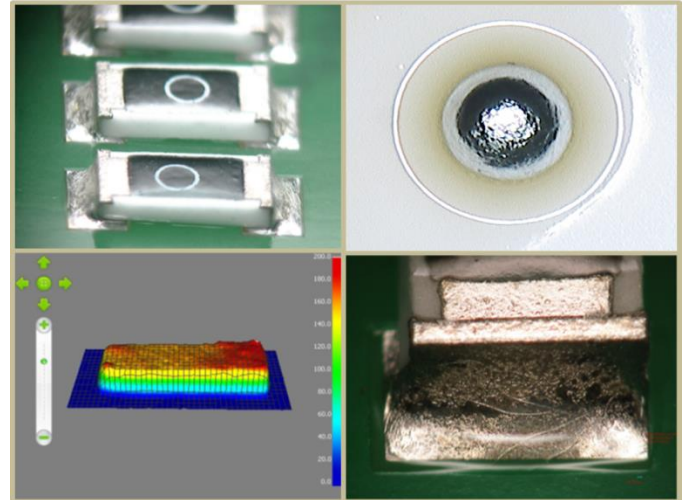
NC259 NO CLEAN SOLDER PASTE

FEATURES

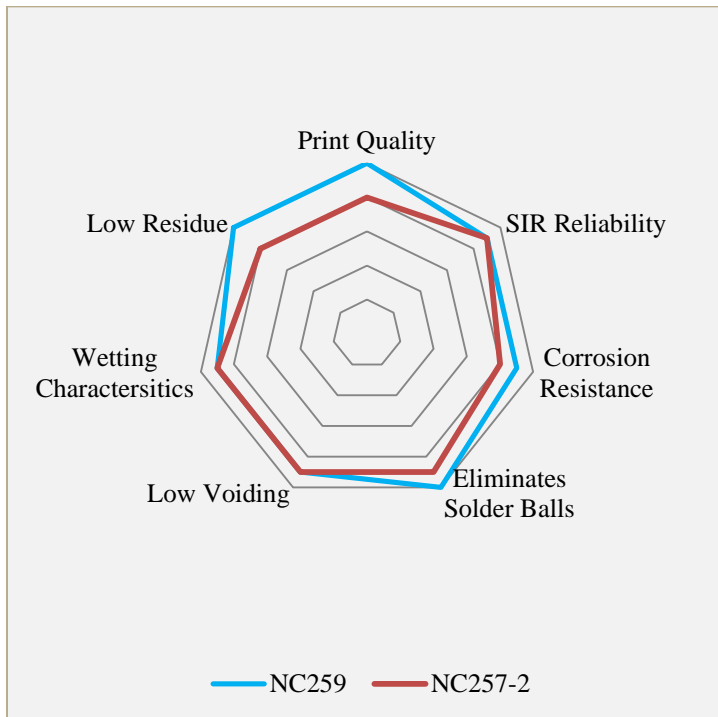
- Low Voiding
- Reduced Head-in-Pillow
- Long Pause-to-Print Capabilities
- Precise Fine Feature Print Definition
- Excellent Wetting with No/Low-Silver
- Extremely Low Residues
- Print Speeds up to 6"/Sec (150mm/Sec)

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.

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.



REFLOW PROFILE


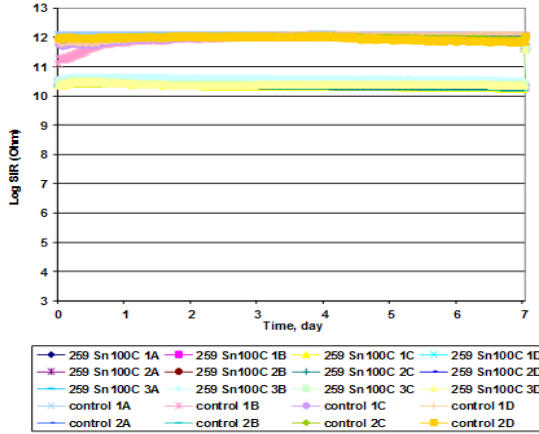
Detailed profile information may be found at <http://www.aimsolder.com/reflow-profile-supplements>. Contact AIM for additional information.



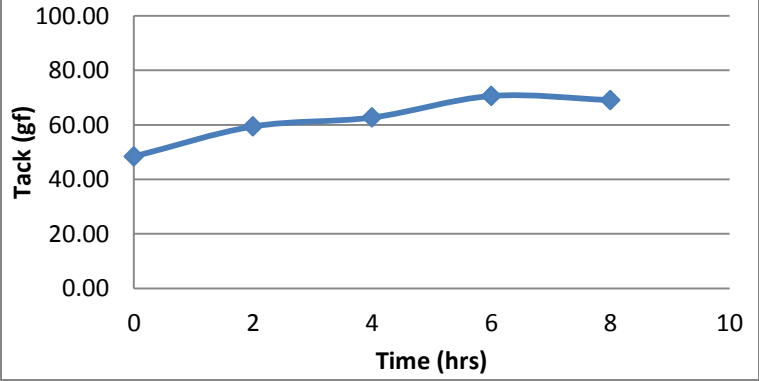
PRINTING

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	ROLO	
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	
Quantitative Halides	J-STD-004B 3.4.1.3 IPC-TM-650 2.3.28.1	PASS	

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-004B 3.4.2.4 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	

Name	Test Method	Typical Results	Image												
Solder Ball	J-STD-005A 3.7 IPC-TM-650 2.4.43	PASS	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>15 Min</p>  </div> <div style="text-align: center;"> <p>4 Hours</p>  </div> </div>												
Tack	J-STD-005A 3.8 IPC-TM-650 2.4.44	48g Typical	<div style="text-align: center;"> <p>Tack NC 259 Sn100C</p>  <table border="1" style="margin-top: 10px;"> <caption>Tack (gf) vs Time (hrs) Data</caption> <thead> <tr> <th>Time (hrs)</th> <th>Tack (gf)</th> </tr> </thead> <tbody> <tr><td>0</td><td>48</td></tr> <tr><td>2</td><td>60</td></tr> <tr><td>4</td><td>62</td></tr> <tr><td>6</td><td>70</td></tr> <tr><td>8</td><td>68</td></tr> </tbody> </table> </div>	Time (hrs)	Tack (gf)	0	48	2	60	4	62	6	70	8	68
Time (hrs)	Tack (gf)														
0	48														
2	60														
4	62														
6	70														
8	68														
Wetting	J-STD-005A 3.9 IPC-TM-650 2.4.45	PASS													