

# NC258 (NO CLEAN) SOLDER PASTE

#### **FEATURES**

- Long Pause-to-Print Capabilities
- Excellent Wetting, Even Leadless Devices
- Reduces Voiding
- Low Post Process Residues
- RoHS Compliant
- Passes Bono Testing

#### **DESCRIPTION**

NC258 has been developed to offer long pause-to-print capabilities while enhancing fine print definitions. NC258 reduces voiding. The superior wetting ability of NC258 results in bright, smooth and shiny solder joints. It also offers very low post process residues, which remain crystal clear even at the elevated temperatures required for today's lead-free alloys.

## CHARACTERISTICS





### HANDLING & STORAGE

Parameter	Time	Temperature
Refrigerated Shelf Life	1 year	0°C - 12°C (32°F - 54°F)
Unrefrigerated Shelf Life	3 months	13°C - 22°C (55°F - 72°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 NC258 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 NC258 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: NC258 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 NC258 residues can be effectively removed with common defluxing agents. Contact AIM for cleaning compatibility information.

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## **TECHNICAL DATA SHEET**



## **REFLOW PROFILE**

Detailed profile information may be found at <u>http://www.aimsolder.com/reflow-profile-supplements</u>. 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 0.00mm (0.00'')	
PCB Separation Distance	0.75 – 2.0mm (.038080'')	
PCB Separation Speed	3.0 – 20.00 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 Image Results		Image
Copper Mirror	J-STD-004B 3.4.1.1 IPC-TM-650 2.3.32	LOW	SAGING YE230	SL 413F
Corrosion	J-STD-004B 3.4.1.2 IPC-TM-650 2.6.15	PASS	Before	After

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Name	Test Method	Typical Results	Image
Quantitative Halides, Chloride, Bromide	J-STD-004 3.2.4.3.1 IPC-TM-650 2.3.35 or 28	Br: 0.33% Cl: 0%	
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 See Aim Qualification Test Report #NC258052510	
Bono Testing		PASS Fc<8.0 Typical	
Oxygen Bomb Halogen Testing	EN14582:2007 SW 9056 SW 5050	Br <50.1 mg/Kg Cl <125 mg/Kg	
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	99.89%	
Acid Value Determination	J-STD-004B 3.4.2.2 IPC-TM-650 2.3.13	145 +/- 6mg KOH/g Flux	
Flux Specific Gravity Determination	J-STD-004B 3.4.2.3 ASTM D-1298	0.9223	
Viscosity	J-STD-004B 3.4.2.4 IPC-TM-650 2.4.34	600-900 depending on metal load and particle size	
Visual	J-STD-004B 3.4.2.5	PASS	

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Name	Test Method	Typical Results	Image
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	15Min 4Hr
Tack	J-STD-005A 3.8 IPC-TM-650 2.4.44	37.9g	SAC305 NC258 60.00 40.00 50 20.00 0.00 T0 T1 T3 T4 T5 T6 T7 T8 Time (hour)
Wetting	J-STD-005A 3.9 IPC-TM-650 2.4.45	PASS	

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