



## Technical Bulletin

### NC257MD Jet Printing Solder Paste



Solder plus Support

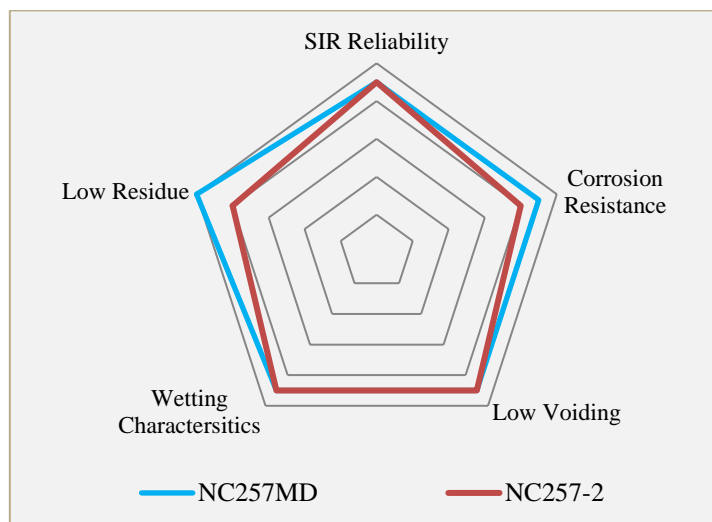
#### DESCRIPTION

AIM's NC257MD solder paste has been specifically developed for Mycronic Jet Printers. Its unique rheological properties were engineered and validated through extensive testing in collaboration with Mycronic to provide continuous and consistent deposits. NC257MD prolongs ejector life and reduces paste scrap and consumption. The superior wetting ability of NC257MD results in bright, smooth and shiny solder joints and reduced voiding on BGA and BTC devices. NC257MD produces low post reflow flux residues, which remain crystal clear and easily probed even at the elevated temperatures required for lead-free alloys.

#### FEATURES AND BENEFITS

- Specially Engineered for Mycronic Jet Printers
- Clear Pin-Probe Testable Residue
- Excellent Wetting, Even Leadless Devices
- Reduces Voiding Under Micro-BGAs
- 8-12 Hour Tack Time
- Vapor Phase Compatible
- For Use With Mycronic AG Type Ejector

#### CHARACTERISTICS



#### STORAGE & SHELF LIFE

Handle exactly as noted for best performance. Allow the solder paste to warm up completely and naturally to ambient temperature prior to use. From  $< -18^{\circ}\text{C}$  ( $< 0^{\circ}\text{F}$ ) - approximately 12 hours. From  $0^{\circ}\text{C}$  to  $12^{\circ}\text{C}$  ( $32^{\circ}\text{F}$ - $55^{\circ}\text{F}$ ) - approximately 4 hours. After opening, solder paste shelf life is environment and application dependent. Daily replacement with a fresh syringe of paste can prolong ejector life and optimize performance.

Parameter	Time	Temperature
Sealed Frozen Shelf Life	6 Months	$< -18^{\circ}\text{C}$ ( $< 0^{\circ}\text{F}$ )



# SOLDER CONNECTION

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## CLEANING

Post-Reflow Flux Residue: NC257MD residues can remain on the assembly after reflow and do not require cleaning. Where cleaning is mandated, NC257MD residues can be effectively removed with common defluxing agents.

## HEALTH & SAFETY

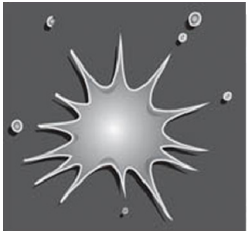
Use with adequate ventilation and proper personal protective equipment. Refer to the accompanying Safety Data Sheet for any specific emergency information. Do not dispose of any hazardous materials in non-approved containers.

## REFLOW PROFILE

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

## 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	L1	
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	86.9 Typical	
Acid Value Determination	J-STD-004B 3.4.2.2 IPC-TM-650 2.3.13	149 mg KOH/ g flux Typical	



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Name	Test Method	Typical Results	Image
Flux Specific Gravity Determination	J-STD-004B 3.4.2.3 ASTM D-1298	3.39 Typical	
Viscosity	J-STD-005A 3.5.1 IPC-TM-650 2.4.34	500 Kcps 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	32.8 gf Typical	
Wetting	J-STD-005A 3.9 IPC-TM-650 2.4.45	PASS	

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