

NC254 NO CLEAN SOLDER PASTE

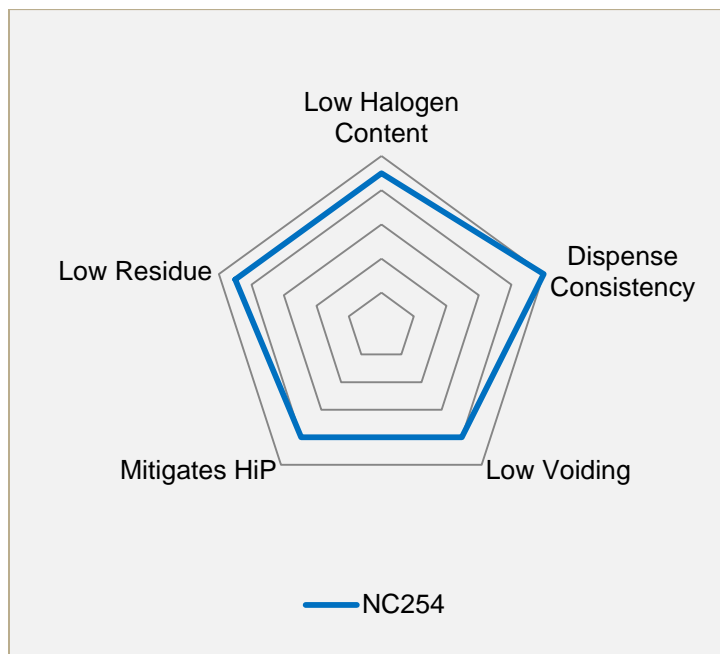
FEATURES

- Optimized for Dispense Applications
- Clear Pin-Probe Testable Residue
- Halide/Halogen Free – REACH/RoHS Compliant
- Excellent Wetting, Even Leadless Devices
- Reduces Voiding Under BTC/Micro-BGAs
- Extended Tack Time

DESCRIPTION

NC254 has been specially developed to provide reliable consistent solder paste deposits with positive displacement and pneumatic type dispensers. NC254 flux system is engineered to withstand the unique requirements of solder paste dispensing including repeated mechanical cycling. NC254 provides excellent wetting and low post process residues, which remain crystal clear and probable at elevated temperatures. NC254 has shown to reduce voiding on bottom terminated devices and micro-BGAs.

CHARACTERISTICS



HANDLING & STORAGE

Alloy	Parameter	Time	Temperature
Lead-Free	Refrigerated Shelf Life	9 Months	0°C-12°C (32°F-55°F)
Lead-Free	Unrefrigerated Shelf Life	4 Months	< 25°C (< 77°F)
Leaded	Refrigerated Shelf Life	12 Months	0°C-12°C (32°F-55°F)
Leaded	Unrefrigerated Shelf Life	N/A	N/A

NC254 is packaged in EFD style 5, 10 and 30cc barrels. Barrels should be stored tip down when possible. Solder paste should not be returned to refrigeration after exposure. Visibly separated paste should be discarded. See AIM's paste handling guidelines for further information. Alloy and storage conditions may affect shelf life. Please refer to NC254 Certificate of Analysis for product specific information.

CLEANING

NC254 dispense apparatus can be cleaned using isopropyl alcohol. Do not leave NC254 in dispense valve bodies overnight. Valve conditioner may be used to eliminate the need to clean dispense equipment.

Post-Reflow Flux Residue: NC254 residues do not require cleaning. AIM has worked closely with industry partners to ensure that NC254 residues can be effectively removed with common defluxing agents. Contact AIM for cleaning compatibility information.

DISPENSER SET-UP GUIDELINES

Dispenser tip selection is crucial to successful solder paste dispensing. The largest ID tip that can achieve the desired deposit size must be used. All plastic conical tips should be used with pneumatic dispensers. When metal tips are used, the shortest available tip length should always be used. The lowest pressure settings that can achieve the desired deposit size must be used. Pneumatic dispensers should never exceed 40psi (2.75bar) or paste separation can occur.

REFLOW PROFILE

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

TEST DATA SUMMARY

Name	Test Method	Results	
IPC Flux Classification	J-STD-004	ROL0	
Name	Test Method	Typical Results	Image
Copper Mirror	J-STD-004 3.4.1.1 IPC-TM-650 2.3.32	LOW	
Corrosion	J-STD-004 3.4.1.2 IPC-TM-650 2.6.15	PASS	
Qualitative Halides, Silver Chromate	J-STD-004 3.5.1.1 IPC-TM-650 2.3.33	PASS	
Qualitative Halides, Fluoride Spot	J-STD-004 3.5.1.2 IPC-TM-650 2.3.35.1	No Fluoride	
Surface Insulation Resistance	J-STD-004 3.4.1.4 IPC-TM-650 2.6.3.3	PASS	Test data available on request
Electrochemical Migration	J-STD-004 3.4.1.5 IPC-TM-650 2.6.14.1 GR-78-CORE	PASS	Test data available on request
Flux Solids, Nonvolatile Determination	J-STD-004 3.4.2.1 IPC-TM-650 2.3.34	96.7% Typical	
Acid Value Determination	J-STD-004 3.4.2.2 IPC-TM-650 2.3.13	114 mg KOH/ g flux Typical	
Viscosity	J-STD-004 3.4.2.4 IPC-TM-650 2.4.34	300-400 Kcps	
Visual	J-STD-004 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	34.2 gf Typical	