

## Technical Bulletin



Solder plus Support

### FX16 No Clean Liquid Flux

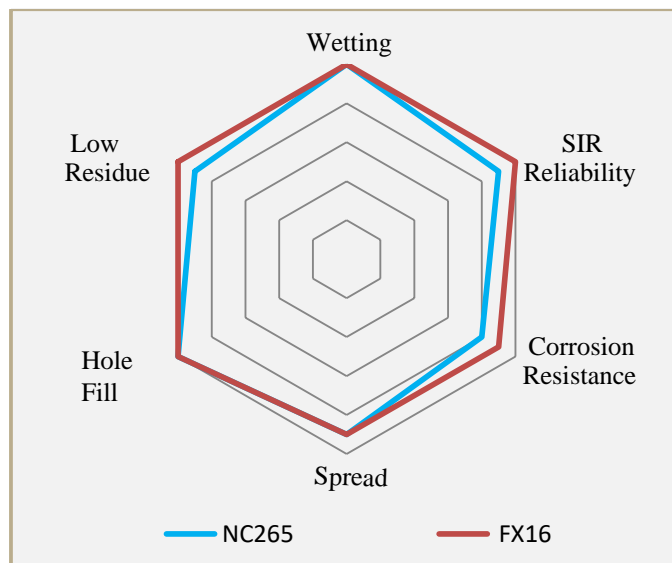
#### DESCRIPTION

FX16 No Clean Flux has been engineered to provide exceptional soldering performance while leaving minimal, electrically safe flux residues, even when unheated. FX16 is ideally formulated for point-to-point selective soldering and palletized wave soldering. FX16 provides fast wetting and PTH barrel fill and reduces common soldering defects such as bridging, flagging and solder balls. FX16 has a durable activation system that can withstand high process temperature required for thermally demanding applications and extended solder contact time.

#### FEATURES AND BENEFITS

- Halide/Halogen-Free
- ROL0 Per IPC J-STD-004A/B
- Low Post Process Residues
- Fast Wetting with All Leaded and Lead-Free Alloys
- IPC-A-610F Compliant
- High SIR Performance
- Broad Process Window

#### CHARACTERISTICS



#### STORAGE & SHELF LIFE

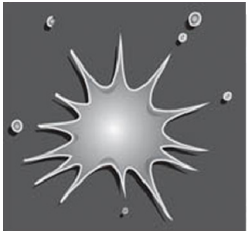
FX16 has a sealed shelf life of one (1) year when stored at room temperature. Do not store near fire or flame. Keep away from sunlight as it may degrade product. FX16 is shipped ready-to-use, no mixing necessary. Do not mix used and unused chemicals in the same container. Reseal any opened containers. Storage conditions range from 4-40°C (40-100°F).

Parameter	Time	Temperature
Sealed Shelf Life	1 year	Room Temperature

#### HEALTH & SAFETY

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

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# SOLDER CONNECTION

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## APPLICATION

FX16 is formulated for application via spray, brush or dip. FX16 is ready to use directly from its container, no thinning required. When spray fluxing, it is imperative that proper flux coverage and uniformity be achieved and maintained. A dry flux coating of 900-1500 micrograms per square inch is typical.

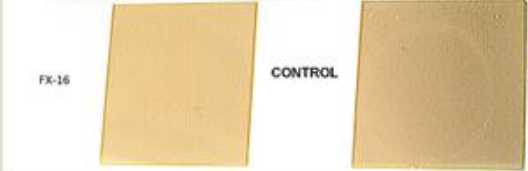

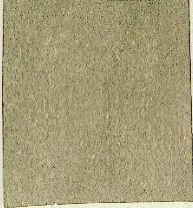
## PROCESS GUIDELINES

Using thermocouples attached to the PCB, the topside assembly temperature should be between 80-140°C (175-285°F). It is important that the flux be dry prior to entering the wave regardless of PCB temperature or spattering will occur. Smoke is considered normal if it is not excessive. Recommended contact time with the wave is dependent on wave configuration, pot temperature, alloy type and thermal mass of the assembly with 3-7 seconds being typical for lead-free applications.

## CLEANING

FX16 residues can remain on the assembly after reflow and do not require removal. Where cleaning is mandated, AIM has worked closely with industry partners to ensure that FX16 residues can be effectively removed with common defluxing agents. Contact AIM for cleaning compatibility information.

## TEST DATA SUMMARY

Name	Test Method	Results	
IPC Flux Classification	J-STD-004	ROLO	
IPC Flux Classification	J-STD-004B 3.3.1	ROLO	
Name	Test Method	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	Br: 0.00% Cl: 0.00%	
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	

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