



Technical Bulletin



Solder plus Support

RX18 3.5% No Clean Cored Wire Solder

DESCRIPTION

RX18 no clean flux core wire solder was developed to provide excellent soldering results with all alloys and surface finishes. Engineered for robotic soldering, RX18 promotes thermal transfer, fast wetting and rapid solder penetration into plated through holes or surface mount interconnections. RX18 specialized packaging ensures consistent, accurate, jam-free wire feeding. RX18 post solder residues are minimal, clear and pass IPC-004A and IPC-004B SIR and corrosion requirements and do not require cleaning.

FEATURES AND BENEFITS

- Low Voids/Skips
- Low Spatter
- Extends Solder Tip Life
- ROL0 per IPC J-STD-004
- REACH and RoHS Compliant*
- Fast Wetting/Feed Rates

ALLOY AVAILABILITY

RX18 is available in multiple lead-free alloys. Additional alloys and diameters may be available upon request.

RX18 is available in AIM 's High Reliability Lead-Free Alloys, REL61™ and REL22™. These have been developed to meet the demands of an evolving solder market. Greater durability, lower costs and lower processing temperature are key drivers and AIM REL61 and REL22 provide assemblers with new tools to improve product quality in the assembly process. REL alloys have demonstrated reduced tin whisker formation as well as outperforming SAC alloys in thermal shock, vibration and drop shock resistance, making these alloys the ideal choice for all electronics applications.

APPLICATION

Best results are obtained with properly sized solder iron tip with a temperature between 300° - 400°C (575° - 750°F) for leaded alloys and 370° - 425°C (700° - 800°F) for lead-free alloys.

CLEANING

RX18 can be cleaned with commercially available flux removers. IPA is not recommended. Contact our Sales office for specific information.

STORAGE & SHELF LIFE

Store cored wire in a clean, dry area away from moisture and sunlight. Do not freeze this product.

Time	Parameters
7 Years	< 85°F (< 29°C)

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.


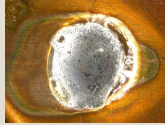

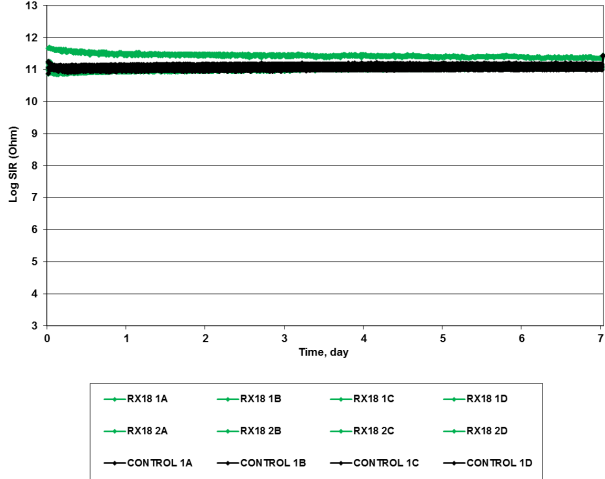
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SOLDER CONNECTION

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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 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	0.09% Typical	
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	PASS
Surface Insulation Resistance	J-STD-004B 3.4.1.4 IPC-TM-650 2.6.3.7	PASS	 <p>The graph displays the Surface Insulation Resistance (SIR) over a 7-day period for various test samples. The y-axis represents Log SIR (Ohm) from 3 to 13, and the x-axis represents Time in days from 0 to 7. The legend includes RX18 1A-D, RX18 2A-D, and CONTROL 1A-D. All samples maintain a stable Log SIR value between approximately 11 and 12 throughout the test period, indicating a PASS result.</p>
Acid Value Determination	J-STD-004B 3.4.2.2 IPC-TM-650 2.3.13	156 mg KOH/g flux Typical	

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