

ALPHA[®] 9230B

No-Clean Low Residue Flux

DESCRIPTION

ALPHA 9230B is a halide-free, low-solid, no-clean flux. It is formulated for wave soldering of through-hole, mixed technology and surface mount assemblies. The flux is particularly effective when soldering in an inert atmosphere. The flux produces a tack-free surface with high surface insulation resistance and very little residue to interfere with electrical testing. The flux has been specifically formulated to resist degradation in surface insulation resistance and electromigration, even in situations where the flux does not experience soldering temperatures and when heavy levels of flux have been applied. The residues are non-corrosive and do not cause “greening” when in contact with copper or copper-bearing alloys. **ALPHA 9230B** is particularly well-suited for touch-up/rework situations where the application and processing of the flux is not always well-controlled.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

- Good activity. Good soldering in air. Excellent soldering in nitrogen for low defects.
- Produces high reliability assemblies, even when the flux does not experience soldering temperatures.
- Very safe residues. Excellent for touch-up/rework applications.
- Non-corrosive residues. Will not cause “greening” on exposed copper/copper alloys.

APPLICATION GUIDELINES

ALPHA 9230B flux is designed for spray and touch-up applications. Topside preheat temperatures of 80 to 100 °C (180 to 212 °F) are recommended. Flux solids can be monitored using Alpha’s Flux Solids Control Kit #3. If thinning is required, the use of ALPHA 425 thinner is recommended.

TECHNICAL DATA

Item	Typical Values	Item	Typical Values
Appearance	Clear, Colorless Liquid	Flash Point (T.C.C.)	12 °C (52 °F)
Solids Content, wt/wt	< 2.0	Recommended Thinner	425
Specific Gravity @ 25 °C (77 °F)	0.798 ± 0.003	Shelf Life (from Date of Mfg.)	360
Acid Number (mg KOH/g)	11.8 ± 0.5	IPC J-STD-004 Designation	ORL0

CORROSION & ELECTRICAL TESTING
Corrosion Testing

Test	Requirement	Results
IPC/Bellcore Copper Mirror Test	No complete removal of copper	Pass
Halide Silver Chromate Paper Method	No detection of halide	Pass
IPC SF-818 10 day Copper Corrosion Test	No evidence of corrosion	Pass

J-STD-004 Surface Insulation Resistance

Test	Conditions	Requirements	Results
"Comb-Down" Uncleaned	85 °C/85% RH, 7 days	1.0 x 10 ⁸ minimum	Being Tested
"Comb-Up" Uncleaned	85 °C/85% RH, 7 days	1.0 x 10 ⁸ minimum	Being Tested
Control Boards	85 °C/85% RH, 7 days	2.0 x 10 ⁸ minimum	Being Tested
IPC Test Condition (per J-STD-004): -50V, measurement @ 100V/IPC B-24 board (0.4mm lines, 0.5mm spacing).			

Bellcore SIR

Test	Conditions	Requirements	Results
"Comb-Up" Uncleaned	35 °C/85% RH, 5 days	1.0 x 10 ¹¹ minimum	9.9 x 10 ¹¹
"Comb-Down" Uncleaned	35 °C/85% RH, 5 days	1.0 x 10 ¹¹ minimum	8.4 x 10 ¹¹
Control Boards	35 °C/85% RH, 5 days	2.0 x 10 ¹¹ minimum	3.7 x 10 ¹¹
Bellcore Test Condition (per GR 78-CORE, Issue 1): 48 Volts, measurement @ 100V/25 mil lines/50 mil spacing.			

Special SIR Testing After touch-up: Combination of Alpha UP78OSP/EF2202/Telecore Plus/9230B Complete procedure and data available on request.

Test	Conditions	Requirements	Results
"Comb-Up" Uncleaned	85 °C/85% RH, 7 days	1.0×10^8 minimum	4.4×10^9
Control Boards	85 °C/85% RH, 7 days	1.0×10^8 minimum	1.6×10^{10}
IPC Test Condition (per J-STD-004): -50V, measurement @ 100V/IPC B-24 board (0.4mm lines, 0.5mm spacing).			

AVAILABILITY

ALPHA 9230B flux is available in 1, 5 and 55 gallon containers, as well as in flux pens for hand soldering.

SAFETY & WARNING

It is recommended that the company/operator read and review the Safety Data Sheets for the appropriate health and safety warnings before use. **Safety Data Sheets are available at MacdermidAlpha.com/assembly-solutions/knowledge-base**

CONTACT INFORMATION

To confirm this document is the most recent version, please contact
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Also read carefully warning and safety information on the Safety Data Sheet. This data sheet contains technical information required for safe and economical operation of this product. READ IT THOROUGHLY PRIOR TO PRODUCT USE. Emergency safety directory assistance: US 1 202 464 2554, Europe + 44 1235 239 670, Asia + 65 3158 1074, Brazil 0800 707 7022 and 0800 172 020, Mexico 01800 002 1400 and (55) 5559 1588

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