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TECHNICAL BULLETIN

ALPHA® WS362-25

Water-Soluble Surface Mount Flux

DESCRIPTION

ALPHA WS362-25 is a halide-free, water-soluble, organic flux designed for the soldering of surface mount and mixed technology assemblies, where the effective cleaning of residues becomes most critical. The densely-packed assemblies, associated with today's mixed technology boards, adds a difficulty to cleaning which makes the older technology water-soluble fluxes non-optimal for applications requiring high ionic cleanliness.

ALPHA WS362-25 is recommended where maximum flux activity and solids are required, such as the soldering of assemblies with very dense component packing and with multilayer boards requiring relatively high preheat temperatures. After soldering, flux residues are highly water soluble and can be readily removed. This results in assemblies with the highest degree of ionic cleanliness and high surface insulation resistance.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

- Most cleanable water-soluble flux; Highest ionic cleanliness and surface insulation resistance
- Halide-free; Maximum electrical integrity
- Good activity with rapid wetting; Defect-free soldering

APPLICATION GUIDELINES

ALPHA WS362-25 flux can be applied by foam, spray or wave techniques. The recommended topside preheat temperatures are 82 to 104 °C (180 to 220 °F).

Post soldering flux residues should be removed as soon as possible and should not exceed 8 hours after soldering. Any longer amount of time can result in etching of the joints due to the very high activity level of the flux. Thorough cleaning can be accomplished with 50 to 75 °C (120 to 170 °F) water. For critical cleanliness requirements, final rinsing with DI water may be required.

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TECHNICAL DATA

Property	Typical Values	Property	Typical Values
Appearance	Clear, pale yellow	Flash Point (T.C.C.)	17 °C
Solids Content, wt/wt	25%	pH of 5% Aqueous Solution	3.2
Specific Gravity @ 25 °C (77 °F)	0.846 +/– 0.005	Recommended Thinner	ALPHA 425
Acid Number (mg KOH/g)	33.00 +/- 2.00	Shelf Life (from Date of Mfg.)	540 days
Packaging	1, 5, 55 gallons	IPC J-STD-004 Designation	ORMO

ELECTRICAL TESTING

IPC-J-STD-004 Surface Insulation Resistance (All values shown are in ohms)

Test	Conditions	Requirements	Results
"Comb-Down" Hydrocleaned	85 °C/85% RH, 7 days	> 1.0×10^8	4.4×10^8
Control Boards	85 °C/85% RH, 7 days	>1.0×10^9	3.6×10^9
IPC Test Condition (per J-STD-004): --50V, measurement @ 100V/IPC B-24 board (0.4 mm lines, 0.5 mm spacing).			

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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 Assembly@MacDermidAlpha.com

www.macdermidalpha.com

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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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