

# ALPHA<sup>®</sup> RF-800PT

## No-Clean, Low Residue Flux

### DESCRIPTION

**ALPHA RF-800PT** is a low-solids, no-clean flux for wave soldering through-hole, mixed technology and surface mount assemblies. It has a unique formulation that provides high activity with virtually no visible residue and an extremely low level of solder balls with most solder masks. **ALPHA RF-800PT** leaves a tack-free surface with high surface insulation resistance.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

### FEATURES & BENEFITS

- Low Solids No-Clean Formulation; Eliminates the Need for Cleaning
- Unique Activator System providing Extremely Low Levels of Solder-balling and Solder Bridging
- No Visible Residue for Accurate Pin Testing and Enhanced Board Cosmetics

### APPLICATION GUIDELINES

ALPHA RF-800PT Flux utilizes a unique blend of organic activators which significantly reduces solder bridging, icicling and solder balling on difficult to solder assemblies. ALPHA RF-800PT Flux can be applied by foam, spray or wave techniques. Topside preheat temperatures of 80 to 100 °C (180 to 210 °F) are recommended. Higher preheat temperatures can lead to premature volatilization of the activators, leading to less than optimal soldering performance. Best results are obtained using the following guidelines:

1. Maintain spray volume of the flux on each board.
2. Replace the flux daily unless a sealed, self-contained system is available.
3. Adjust the acid number as determined with the ALPHA Flux Solids Control Kit #3 to between 14.0 and 16.0 mgKOH/g with ALPHA 425 Thinner.
4. Add fresh ALPHA RF-800PT to maintain the appropriate flux level.
5. Regularly clean the fluxing equipment. Equipment can be easily cleaned with sponge and water. For foam fluxers, the stone should be cleaned with ALPHA NC-T Thinner.
6. ALPHA RF-800PT Flux can be maintained by monitoring specific gravity, but control by acid number determination is recommended.

**TECHNICAL DATA**

Item	Typical Values	Item	Typical Values
Appearance	Clear, Colorless to Pale Yellow Liquid	Flash Point (T.C.C.)	12 °C
Solid Content, %wt/wt	1.8	Recommended Thinner	ALPHA 425
Specific Gravity @ 25 °C (77 °F)	0.795 ± 0.003	Shelf Life (from Date of Mfg.)	540 Days
Acid Number (mg KOH/g)	15.0 ± 1.0	IPC J-STD-004 Designation	ORL0
Packaging Size	1, 5 & 55 Gallons		

**CORROSION & ELECTRICAL TESTING**
**Corrosion Test**

Test	Requirement	Results
Silver Chromate Paper Test (IPC / Bellcore Method)	No Detection of Halide	PASS
Copper Mirror Test (IPC / Bellcore Method)	No Complete Removal of Copper	PASS
Copper Corrosion Test (IPC)	No Evidence of Corrosion	PASS

**J-STD-004 Surface Insulation Resistance (All Values in Ohms)**

Test	Conditions	Requirement	Results
"Comb-Down" Un-cleaned	85 °C / 85% RH, 7 Days	1.0 X 10 <sup>8</sup> min	6.2 X 10 <sup>9</sup> min
"Comb-Up" Un-cleaned	85 °C / 85% RH, 7 Days	1.0 X 10 <sup>8</sup> min	1.0 X 10 <sup>10</sup> min
Control	85 °C / 85% RH, 7 Days	2.0 X 10 <sup>8</sup> min	4.0 X 10 <sup>10</sup> min

IPC Test condition (per J-STD-004): -50V, measurements @ 100V / IPC B-24 board (0.4mm lines, 0.5mm spacing)

**RECYCLING SERVICES**

We provide safe and efficient recycling services to help companies meet their environmental and legislative requirements and at the same time, maximize the value of their waste streams.

Our service collects solder dross, solder scrap, and various forms of solder paste waste. Please contact your local sales representative for recycling capabilities in your area or [link here](#).



**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](http://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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