

# ALPHA<sup>®</sup> RMA-390-DH3 Paste Flux

## Rosin-Based ROL1 Paste Flux

### DESCRIPTION

**ALPHA RMA-390-DH3** is a rosin-based paste flux designed for surface mount and other demanding electronic assembly applications. It is able to withstand temperature in excess of 300 °C and capable of processing high lead and lead-free alloy compositions.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

### FEATURES AND BENEFITS

- **Wide Reflow Profile Window:** allows best quality solderability of complicated, high-density PWB assemblies in both air and nitrogen reflow, using straight ramp or soak profiles up to 300 °C.
- **Excellent Solder Joint and Flux Residue Cosmetics:** after reflow soldering even using long/high thermal soaking without charring or burning.

### PRODUCT INFORMATION

Packaging Sizes: 30cc syringe, 100 gram jar

Environmental Compliance: Complies with RoHS Directive 2011/65/E

**APPLICATION GUIDELINES**

ALPHA RMA-390-DH3 Paste Flux may be applied by screen printing or pin transfer (substrate) or doctor blade / dip coating (package). It can also be dispensed.

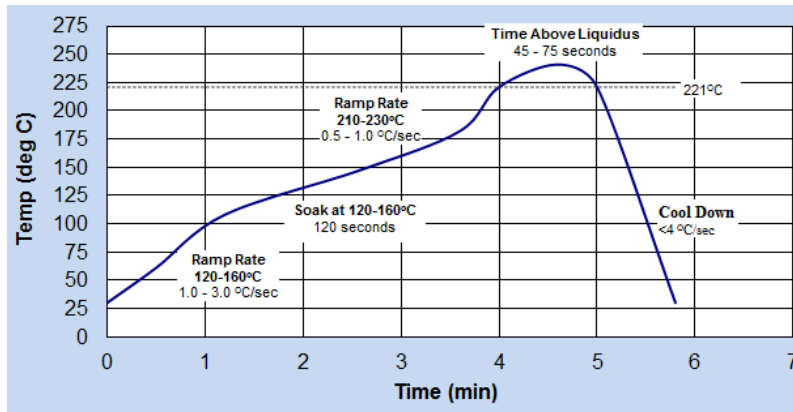
ALPHA RMA-390-DH3 is a rosin-based flux system designed for complete solvent wash-ability of flux residue after reflow. Most commercial electronic assembly cleaning solvents are effective, including ALPHA 565 or a semi aqueous cleaner designed to meet the most demanding cleaning requirements with complete ecological compatibility. Flux residues can also be removed by saponification with ALPHA 2110 in water.

**TECHNICAL DATA**

Category	Results	Procedure/Remarks
<b>Chemical Properties</b>		
Activity Level	ROL1	IPC J-STD-004
Cu Mirror Corrosion Test	Pass (L)	IPC J-STD-004
Halide Content	<0.05%	By Titration
<b>Electrical Properties</b>		
SIR (IPC 7 days @ 85 °C/85% RH)	<b>Pass</b> , $2.8 \times 10^8$ ohms	IPC J-STD-004 (Pass $\geq 1 \times 10^8$ ohm) uncleaned
SIR (Bellcore 96 hours @ 35 °C /85%RH)	<b>Pass</b> , $4.6 \times 10^{11}$ ohms	Bellcore GR78-CORE (Pass $\geq 1 \times 10^{11}$ ohm)
<b>Physical Properties</b>		
Color	Smooth, Amber Paste	
Viscosity (5rpm at 25 °C by Malcom Viscometer)	120 to 400 Poise (typical for RMA-390-DH3 LV) 400 to 1000 Poise (typical for RMA-390-DH3 HV)	
Fineness of Grind (um)	Typically, <10 $\mu$ m	

REFLOW PROFILES

Figure 1: Typical Reflow Profile



Note: These are profiles that were tested in the lab with acceptable reflow and coalescence performance, optimization to each board application should still be carried out by users to ensure best results.

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).**

**STORAGE**

The flux should be stored in sealed containers and need not be refrigerated. Shelf life of unopened containers at room temperature (19 to 25 °C / 66 to 77 °F) is 6 months from the manufacturing date. If the material has been chilled, the container should be allowed to reach room temperature before opening to prevent moisture condensation from ambient air onto the flux.

**CONTACT INFORMATION**

**To confirm this document is the most recent version, please contact [Assembly@MacDermidAlpha.com](mailto:Assembly@MacDermidAlpha.com)**

[www.macdermidalpha.com](http://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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