ALPHA RMA 7 FLUX GEL

DESCRIPTION

ALPHA RMA 7 is a rosin based flux gel designed for surface mount processes and other demanding electronics assembly applications, including rework, where post reflow cleaning is not required. Because of its unique activator package and other special additives, **ALPHA RMA 7** flux gel is suitable to remain on the circuit board without cleaning.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES AND BENEFITS

- Excellent Rheology
- Unique Flux Vehicle
- Wide Process Window
- High Tack
- Excellent No Clean Reliability

APPLICATION GUIDELINES

ALPHA RMA 7 flux gel should be applied by printing, dispensing, or brushing.

ALPHA RMA 7's activator system enables the flux to penetrate even moderately tarnished surfaces among the following metals:

Silver	Copper
Solder (Creams)	Gold
Solder (Hot Dip)	Tin (Hot Dip)
Cadmium (Plate)	Tin (Plate)

ALPHA RMA 7 can be successfully reflowed in infrared, convection, hot stage, hot bar, belt, or vapor phase systems.

TECHNICAL DATA

Category	Results	Procedure/Remarks
Chemical Properties		
Activity Level	**ROL0** = J-STD Classification	IPC J-STD-004
Halide Content	**Pass** - Ag Chromate Test	IPC J-STD-004
Copper Mirror Test	**Pass**	IPC J-STD-004
Copper Corrosion Test	**Pass**, (No evidence of Corrosion)	IPC J-STD-004
Electrical Properties		
SIR (IPC 7 days @ 85 °C/85% RH)	**Pass**, > 2.4 x 10^9 ohms	IPC J-STD-004 {Pass ≥ 1 x 10^8 ohm min}
Physical Properties		
Color	Clear, Colorless Flux Residue	
Tack Force	>3.0 grams/mm^2	IPC J-STD-005

PROCESSING GUIDELINES

ALPHA RMA 7 can be safely left on the circuit board after reflow without cleaning. If cleaning is desired, most commercially available electronic assembly cleaning solvents are effective. Particularly effective is ALPHA Auto Clean 40, which is a semi-aqueous cleaner designed to meet the most demanding cleaning requirements with complete environmental compatibility. Flux residues are also removable by saponification with ALPHA 2110 in water.

High ambient temperatures should be avoided in the handling of ALPHA RMA 7. Storage temperatures of 0 to 10 °C are sufficient to maintain ALPHA RMA 7's nominal shelf life. ALPHA RMA 7 should be permitted to achieve room temperature before unsealing the package.

The production environment should be 18 to 27 °C and 30 to 60% relative humidity. Production stencils can be cleaned using ALPHA SC1080 Fluid in a dedicated screen cleaning machine.

Storage & Handling	Printing	Reflow	Cleaning
• Refrigerate to guarantee stability • @ 1 to 10 °C • Shelf life of refrigerated paste is six months. • Warm-up of jar or cartridge to room temperature should be 6 hours. • Do not remove worked flux gel from stencil and mix with unused flux gel in jar. This will alter the rheology of unused material.	**Screen**: Can be applied through a mesh screen using off-contact printing Method **Squeegee:** Polyurethane blades are recommended for screen printing, metal blades for stencil printing. **Pressure:** 0.15 to 0.25Kgs per cm of print pattern. **Stencil Separation:** Slow **Squeegee Speed**: 15-50 mm per second **Dispense Pressure**: Pressure should be similar to that of adhesive dispensing. Varies for each machine.	Use convection, IR, or combination ovens, belt, hot - plate, vapor phase. Clean-dry air or nitrogen atmosphere. PROFILE: - Ramp @ 60 to 120 °C/min. to 120 to 160 °C. - Dwell @ 120 to 160 °C for 1.0 to 1.5 minutes. - Ramp @ 60 to 120 °C/min to 215 to 220 °C peak temp. Time over 183 °C for 30 to 60 seconds - Ramp down to R.T. @ 90 to 120 °C/min. - Ensure solder is frozen at exit of last heated zone to avoid disturbed joint defects.	Although designed as a no-clean flux system, the residue may be cleaned with: • ALPHA Autoclean 40 or • ALPHA 2110 saponifier with water. Clean stencils with ALPHA SC-1080 stencil cleaner

AVAILABILITY

ALPHA RMA 7 is available in a variety of sealed jars and cartridges for dispensing.

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.**

CONTACT INFORMATION

To confirm this document is the most recent version, please contact Assembly@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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