ALPHA RMA 7 FLUX GEL

DESCRIPTION

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, **RMA 7** flux gel is suitable to remain on the circuit board without cleaning

FEATURES & BENEFITS

- Excellent rheology
- Unique Flux Vehicle
- Wide process window
- High tack
- Excellent no clean reliability

APPLICATION

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

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

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

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

PROCESSING GUIDELINES

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 **RMA 7**. Storage temperatures of 0° - 10°C are sufficient to maintain **RMA 7's** nominal shelf life. **RMA 7** should be permitted to achieve room temperature before unsealing the package.

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

HEALTH & SAFETY

Observe standard precautions for handling and use. Use in well ventilated areas. DO NOT SMOKE. Avoid prolonged or repeated contact with the skin by the use of solvent resistant gloves. Avoid contact with eyes.

Flammable, keep away from sparks and open flames. Empty containers can still be a flammable hazard from residual vapours.

Remove skin splashes by immediate washing with soap and water.

In order to carry out your full COSHH assessment, consult the product Material Safety Data Sheet (MSDS)

Cookson Electronics ASSEMBLY MATERIALS

PACKAGING

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

ALPHA RMA 7 TECHNICAL DATA

CATEGORY	RESULTS	PROCEDURES/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

ALPHA RMA 7 PROCESSING GUIDLINES

STORAGE-HANDLING	PRINTING	REFLOW	CLEANING
•Refrigerate to guarantee stability @ 1-10°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 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 @ 60-120°C/min. to 120-160°C. - Dwell @ 120-160°C for 1.0-1.5 minutes. - Ramp @ 60-120°C/min to 215-220°C peak temp. Time over 183°C for 30-60 seconds - Ramp down to R.T. @ 90-120°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: • Autoclean 40 or • Alpha 2110 saponifier with water. • Clean stencils with Alpha SC-1080 stencil cleaner

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