ALPHA® A88

No-Clean Rosin Flux

DESCRIPTION

ALPHA A88 is a homogeneous solution of pure water-white rosin in organic solvents containing a controlled amount of effective activating agents. **ALPHA A88** is a foam flux specially designed for machine soldering.

READ ENTIRE TECHNICAL DATA SHEET BEFORE USING THIS PRODUCT

FEATURES & BENEFITS

- Flux fumes during soldering and residues are not corrosive to solder or even exposed copper.
- High surface insulation resistance of flux residues allowing use as No-Clean flux in many applications. Residues are safe to leave on boards.
- Excellent activity
- Flux residues can be completely removed with the mildest solvents (e.g., FC113 Freons)
- Very low quantity of residual flux, hardly visible by naked eye and present no problem during pin testing.
- Fast drying

APPLICATION GUIDELINES

This flux is especially designed for foam or wave fluxing of conventional and SMD printed circuit boards and other electronic assemblies. It offers the advantages of instant wetting, excellent capillary properties and minimal residues after soldering. The flux is suitable to solder a variety of metallic surfaces such as copper, lead, tin, solder, silver, etc.

OPERATING PARAMETER	Recommendation
Solder Temperature (63Sn37Pb solder)	250 ± 10 °C
Conveyor Speed	4 to 6ft / min
Top-Side Preheat Temperature	Single-sided board: 80 to 90 °C
	Double-sided board: 100 to 120 °C
These are general guidelines which have proven to yield excellent results; however, depending upon your equipment, components, and circuit boards, your optimal settings may be different. To optimize your process, it is recommended to perform a design experiment, optimizing the most important variables (amount of flux applied, conveyor speed, topside preheat temperature, solder pot temperature and board orientation).	

Thinning: To maintain foaming properties, only ALPHA 6051 Thinner should be added to compensate for evaporation loss. Add thinner until a Specific Gravity (@ 25 °C) of 0.821 ± 0.005 is obtained.

TECHNICAL DATA

Item	Typical Values	Item	Typical Values
Appearance	Clear, pale amber liquid	Flash Point (T.C.C.)	15.6 °C
Solids Content, wt/wt	13%	Auto-Ignition Temperature	450 °C
Specific Gravity @ 25 °C (77 °F)	0.821 ± 0.005	Rosin Melting Point	93 °C
Acid Number, mg KOH/gm	23.5 ± 2.4	Shelf Life (from Date of Mfg.)	540 days
Halide Content, %	0.154 ± 0.015	Packaging Size	1, 5, 55 gallons
Rosin Grade (per Fed. Spec LLL-R-626)	WW	IPC J-STD-004 Classification	ROM1

FLUX RESIDUE & REMOVAL

Flux residues of ALPHA A88 dry very quickly to allow handling of assemblies shortly after soldering. Its low solids content (13%) leaves a very small amount of transparent and low-tack residues. These residues are highly insulated and non-corrosive.

Flux Residues After Soldering	
Physical State	Transparent Solid
Softening Point	71 °C
Corrosion Test (40 °C, 95% R.H.)	PASS
Fungus Resistance (MIL-E-5272)	PASS
Surface Insulation Resistance*	1 x 10^{12} ohm min.

* SIR test boards with 25mil lines and 50mil spacing were aged at 95 °F and 90%R.H., with a 50V DC applied. Measurement of the SIR were made using a 100V DC measuring voltage applied in a polarity opposite that of the aging voltage.

Residue Removal: If removal of flux residues is desirable for better cosmetics and reliability, flux residues of ALPHA A88 left after soldering can be easily removed by Freons or chlorinated solvents available in the market. In any case, a bipolar solvent cleaner blend such as ALPHA 563, 564, 565 or 1003 is recommended for effective removal of the flux residues of ALPHA A88. Also, cleaning of flux residues can be done by an aqueous saponifier such as ALPHA 2110.

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.**

STORAGE

The minimum shelf life information is valid for Alpha products in factory-sealed containers stored in temperatures of 50 to 110°F (10 to 43°C). Prolonged exposure to temperatures outside this range may result in separation of ingredients. Containers of this material should also be protected from exposure to direct sunlight and precipitation which may cause container failure over time.

Alpha products are made from a mix of raw materials, some of which are from naturally-derived resources. These naturally-derived raw materials may result in batch to batch color variation, as well as color changes over time. However, our studies have shown that these color variations do not affect product performance, shelf life, processing or reliability.

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