TECHNICAL DATA SHEET
ELECTRAETCH
ETA 24B

ALKALI-STRIPPABLE
ALKALINE/ACID ETCH-RESIST

APPLICATION and END-USE DESIGN:

ELECTRAETCH ETA 24B is a versatile Etch/Plating Resist used on high volume Print and Etch boards where a fast rate of throughput per hour is required, and which is governed by the squeegee speed and the cure rate, and where the sharpest definition is sought with rapid stripping after etch.

ELECTRAETCH ETA 24B can be used to resist Alkali Etchants in the pH range 8.0 to 9.5 it can also be used as an Acid Etch Resist, and is excellent as a Plating Resist, capable of withstanding up to 40 amperes and high pH solutions above a pH of 8.0.

FEATURES and ADVANTAGES

1. **ELECTRAETCH ETA 24B** is capable of almost Universal application. Its excellent printing characteristics and screen stability offer the opportunity for use on hand, semi- and fully-automatic machines.

2. **ELECTRAETCH ETA 24B** strips cleanly, without residue on the boards.

3. **ELECTRAETCH ETA 24B** resists both Plating baths, Alkali and Acid Etchants, Acid Copper and Tin Lead Plating baths. Pre-cleaners with pH under 10.0 can safely be used.

4. Strong blue colour gives good contrast against the copper and the hard surface produced on curing resists abrasion and mechanical damage during automatic stacking.

5. High Thixotropy index produces sharp vertical image edges when screening even fine lines of 200 to 300 micron width.

6. **ELECTRAETCH ETA 24B** is formulated from materials which are fully compatible, thus avoiding entirely bleed out onto the copper non-image areas.

7. Fast removal in alkaline solutions.

VISCOSITY ADJUSTMENT

ELECTRAETCH ETA 24B is supplied press-ready. It is desirable to print **ELECTRAETCH ETA 24B** too thick rather than too thin, otherwise edge definition could suffer. ER1 is recommended in amounts up to 5%.

BOARD CLEANING

It is necessary to clean the copper surfaces of boards to remove all oxides and grease from the surface. Brushing is the usual method employed and this gives best adhesion of the etch resist.

PRINTING

Print through 77 - 120T or S polyester mesh or the equivalent in Stainless Steel. Consult the screen mesh manufacturer to select the right combination of mesh open area relative to circuit design to avoid "moire" effect on imaging.

Use a Direct/Indirect or Capillary stencil with a 18 to 20 micron stencil thickness below the screen mesh when used as an Etch Resist, and 35 to 50 when used as a Plating Resist, is recommended.

Use a relatively hard polyurethene squeegee of up to 70 to 80 degree shore hardness as Etch Resist, 65 to 70 when used as a Plating Resist.

DRYING

Infra-Red or Convection ovens with strong exhaust systems are recommended.

5-10 minutes at 120 degrees C, or 10-15 minutes at 90 degrees C will give a hard film.

REMOVAL

The resist mask can be removed under spray-jets in solutions of caustic soda or potash of between 25% concentration at temperatures of 40 - 50 degrees C. Alternatively, a 30 - 60 second dip in static tanks containing 10% NaOH solution, followed by a water-spray, will be effective.

The pH of the stripping solution should be in excess of 11.5 in order to obtain optimum results.

SCREEN CLEANING

Screens can be cleaned with Universal Screenwash SW100.

STORAGE

Store between 10-25 degs C in a dry store.

Avoid subjecting containers to temperatures below 5 deg C because of the risk of splitting.

Normal stock rotation should be carried out although useful life will reach 1 year under normal storage conditions.

The lid on opened cans should be firmly sealed.

For further information, contact:

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