



**Florida CirTech**  
LEADERS IN PCB TECHNOLOGY

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## ALE 100 Aluminum Etchant

### I. DESCRIPTION

**ALE 100** is a white granular, free-flowing compound which has very little odor. The product has been developed specifically to fill the needs of the aluminum fabricators for an effective compound which will impart a dull satin finish to all types of finished products. Incorporated in the formulation are: Special foam suppressants insuring controlled low-foam, non-caking agents insuring a free-flowing uniform product, and other ingredients to insure a uniform finish. In addition to providing a decorative finish, the product will also remove light tool and die marks which are left from the fabricating process.

Features:

- Controlled Foam
- Easy to use – Fast acting
- Readily soluble in cool or warm water
- Provides uniform decorative finish on aluminum

Aluminum fabricators must, in many cases, apply a decorative finish to their final product. This is done quickly and easily using this new product from American research Products.

### II. OPERATING PARAMETERS

Time: As required to produce etch desired  
Concentration: 2 – 12oz. per gallon  
Temperature: Ambient to 160°F

*\*Note: Adjust parameters to individual needs*

May be used to etch window frames, door frames, structural columns and panels for buildings and any other aluminum products requiring a decorative etch. It may also be used to provide a base for organic finishes or other types of final finishing.

### III. PHYSICAL PROPERTIES

Appearance White, free flowing powder

### IV. CONTROL PROCEDURES

ALE100 is designed for an immersion operation. Mild steel tanks may be used with complete safety. The solution should be held at a constant temperature in the 120° to 160° range. Parts should then be rinsed in warm water. If necessary, dip parts in a **DO 100** solution and followed by a cold water rinse.

### **Bath Make-Up**

1. Fill tank 2/3 full with water.
2. Slowly add the desired amount of product with suitable agitation to insure that product is thoroughly dissolved.
3. Finish filling tank.
4. Turn on heat.

## **V. ANALYSIS**

### **ALE100 Titration Procedure**

1. Accurately pipet 20 mLs of solution to be tested into a 250 ml Erlenmeyer Flask and add 30 - 50 mLs of DI water.
2. Add 2-3 drops of methyl orange indicator. The solution will turn pale orange.
3. Titrate with 1.0N HCL until solution changes from pale to deep orange.
4. Record the number of mLs of 1.0N HCL required.
5. Calculation:  
$$\text{AL100 concentration (oz/gal)} = (\text{mLs of 1.0 N HCL}) \times 0.29$$

## **VI. SAFETY AND STORAGE**

1. Personnel should wear protective clothing such as rubber gloves, rubber apron and safety goggles to prevent contact with skin or eyes.
2. Avoid breathing dust or fumes.
3. Should chemical contact skin, immediately flush with generous amount of water over a prolonged period of time. Should skin irritation occur, contact physician.
4. Should chemical contact the eyes, immediately flush with generous amount of water and continue flushing the eye for several minutes to insure thorough removal of chemical. Contact physician and inform him that the eye was in contact with sodium hydroxide.

## **VII. WASTE TREATMENT**

Contact your FCT Water representative for waste treatment recommendations.

## **VIII. MISCELLANEOUS**

Available in 50 lb containers.