



## **Future Coat Technology**

### **ZAMAK CLEANER AL**

#### **MILD ALKALINE SOAK CLEANER FOR ALUMINIUM**

Zamak cleaner AL is a mildly alkaline soak cleaner for aluminium which can be used for either non-etch cleaning or mild-etch cleaning. It is also an excellent soak cleaner for zinc die castings and other reactive metals.

It is ideal for non-etch to mild etch cleaning of aluminium prior to anodizing, chromating bright dipping and electroplating.

Zamak cleaner AL is highly buffered to prevent attack on aluminum and other sensitive metals. No etching of aluminium occurs at low concentration and temperature, where as mild controlled etching can be achieved at higher concentration and temperature. The cleaner has good detergency and rapidly removes light soil, light buffering compounds and marking ink. (However, for removal of heavy soil and buffering compounds, the work should be pre-cleaned in emulsion type or solvent type cleaner.)

#### **OPERATION CONDITIONS:**

##### **Bath Make up**

Concentration	-50 -60 g/l
Free Alkanity	-3 – 4 ml
Temperature	- 50 - 60°C
Time	- 3 -10 minutes

#### **CONCENTRATION:**

The higher the concentration of the cleaner the greater the speed cleaning and the greater the amount of etching. For no-etch cleaning as the concentration is increased, the time should be decreased to prevent etching. Even at low concentrations, some light clouding of buffed surfaces may be noticed during prolonged immersion. This will not be visible after plating or other finishing.

**OPERATION:**

Cleaning is accomplished by simple immersion of the work in Zamak cleaner AL

If the cleaner is operated as a mild-etch cleaner, a light smut will form on the surface of aluminium. The extent of smut formation will depend upon the etching time and the composition of the alloy. Alloys high in copper or silicon form a dark smut. Copper smuts can be removed in 66% v/v nitric acid solution. If silicon is present in addition to copper, mixtures of nitric acid and must be used

**EQUIPMENT:**

Stainless steel, fiber glass or polypropylene lined tanks with stainless steel heating coils are recommended if aluminium and other reactive metals are processed through the same tank.

**REPLENISHMENT:**

Add 20 gms/lit of zamak cleaner AL to increase free alkalinity by one point.

**CAUTION:**

Zamak cleaner AL is mildly alkaline in nature and contact of the salts or solution with the skin or eyes should avoid.