

# TECHNICAL DATA SHEET

## Dull/ Alkaline Tin Plating Process /Tinning (EB-333)

Tin is a soft white metal which can readily be polished, scratch brushed or flow-melted to give a bright finish. It has a low melting point 232 °C and is used as a major and minor constituent in many alloy solders. The chief application of tin is for products which will come into contact with foodstuffs. The majority of tinplate is now produced by electrolytic processes. It provides protection against atmospheric corrosion and improve soldering properties. Due to extremely high throwing power it can be used both for rack and barrel applications.

### Operating Parameters:

Description	Rack	Barrel
Dull Tin Salt EB-333	100gm/ltr	200gm/ltr
Temperature	60-80 °C (70°C)	60-80 °C (70°C)
Cathode Current density	1.5-2.0 A/dm <sup>2</sup>	1.5-2.0 A/dm <sup>2</sup>
Volt	3-5 V	10-12 V
Filtration	Recommended	Recommended
Agitation	Mechanical	Mechanical
Anode	99.99% Pure tin	99.99% Pure tin

### Bath Make-up:

- Firstly clean tank thoroughly
- Fill the tank 2/3<sup>rd</sup> with RO water.
- Add required quantity of dull tin salt and stir continuously.
- Level the tank with RO water till operating level and allow it to standard temperature.

### Replenishment:-

The dull tin solution should be checked regularly for free sodium hydroxide content and any necessary addition made. If the solution is low in tin and sodium hydroxide, then an addition of dull tin salt should be made. To increase the tin content without affecting the sodium hydroxide content, an addition of sodium stannate should be made.

### Equipment's:-

- MS tanks recommended with FRP or PVC lined. Suitable exhaust system with scrubbing facilities should be provided.

### Cautions:-

- Must wear PP rubber gloves during chemical mixing.
- Also avoid eye, and skin contact.
- Care should be taken while adding chemical.

### Waste Treatment:-

Neutralize the spent solutions as to pH 7.5 – 8.0 before discharging into sewer.