

ELECTROBRITE AL

ALUMINIUM ELECTROBRIGHT DIP

INTRODUCTION

Electrobrite AL has been formulated to give a bright anodically polished finish to aluminium.

BENEFITS

- Bright finish
- Deburrs
- Relatively low temperature

SOLUTION MAKE -UP

It is essential that the tanks to be used for Electrobrite AL are thoroughly cleaned and leached before any chemistry is introduced. If in any doubt as to the cleaning procedure please contact PMD Chemicals Technical Department.

Electrobrite AL 100%

OPERATING DATA

Concentration	100%
SG	1.69-1.75
Aluminium	<50g/L
Anodic voltage	12-16 v
Temperature	50 - 70°C
Time Typical values	5 – 10 mins
Agitation	Solution movement/air
Extraction	Essential

EQUIPMENT

Tanks	PVDF or lead lined tanks.
Heaters	Silica cased immersion heaters, Teflon coated or lead coated heating/cooling coils
Cathode	Carbon or lead



PROCESS SEQUENCE

1. Alkaline clean. Cleaner 505
2. Rinse
3. Electrobrite AL
4. Rinse
5. Rinse
6. Continue depending on application

MAINTENANCE AND CONTROL

Maintain solution level with additions of Electrobrite AL.

To reduce the SG add water.

The Aluminium content should be maintained between 20 – 40 g/L. When the Aluminium content reaches 50 g/L the solution should be treated as follows.

1. Allow the solution to cool.
2. When the Aluminium Salts have crystallised, the clear supernatant liquor should be removed to storage and tank cleaned out.
3. The solution can be returned to the tank together with fresh material to adjust the bath to operating level.
4. The Aluminium sludge should be disposed of in accordance with local authority regulations.

ANALYSIS METHOD

1. Aluminium

Reagents

Sodium Fluoride

Buffer solution (500g/L Ammonium Acetate, 20 mls/L Glacial Acetic Acid)

PAN Indicator 0.1% v/v 1-(2 Pyridyl;-azo) 2 Naphthol in 100 mls Industrial methylated spirits.

0.1 M (0.2N) EDTA solution.

0.1 M Copper Sulphate solution. (24.95g/L)

Method

1. Pipette 5ml of cooled solution in to a 100ml volumetric flask.
2. Dilute to 100mls with DI water and mix.
3. Pipette a 10ml aliquot of this dilution in to a 600 mls beaker.
4. Add 300mls with DI water
5. Add 200mls buffer solution
6. Add 25mls 0.1 M EDTA solution.
7. Add 1ml PAN Indicator.
8. Bring to the boil and then allow to cool to 60°C.

9. Titrate with 0.1 M Copper Sulphate solution to a deep blue end point.
10. Add 1-2 grams Sodium Fluoride and reheat to boiling.
11. Cool to 60°C.
12. Titrate the solution again with 0.1 M Copper Sulphate to a blue end point.
13. Record titre = t mls

Calculation

$t \times 5.4 = \text{g/L Aluminium}$

DISPOSAL

Dispose of in accordance with local authority requirements

PRODUCT FAMILIES

The following products are referred to in this data sheet.

PRODUCT NAME	PRODUCT NUMBER
ELECTROBRITE AL	277008

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