

TECHNICAL DATA SHEET

ALBOND P-52

ZINCATING PROCESS FOR ALUMINIUM

Albond P-52 is a dilute immersion zincate process for activating aluminium by producing dense, uniform zinc coating by immersing so that aluminium can be subsequently electroplated with copper, chromium, nickel, tin and cadmium and silver with excellent adhesion.

Albond P-52 can be used on aluminium strips, castings, forgings and all commercial aluminium alloys.

Albond P-52 is a low viscosity liquid that easily penetrates inaccessible areas like grooves, threads providing better adhesion in comparison with viscous zincating solution.

HOW TO USE ALUBOND P-52

OPERATING CONDITIONS:

Albond P-52	30-50 % by volume
Water	50-70% by volume
Temperature	Room
Time	15 seconds to 100 seconds

MAKE – UP:

Albond P-52 is a liquid ready to use product which is directly added to the tank for starting the operation. Immersion time can be observed visually to get uniform light gray coating. Excess immersion time causes spongy deposits. On certain high silicon containing alloys double zincating process is recommended.

CYCLE:

(Aluminium alloys with containing copper)

- Soak cleaning.
- Water rinse.

If desired, the bath may be controlled by chemical analysis for zinc metal content by any convenient method used for analysis of zinc plating solutions. The bath should be checked for zinc content when first made up and maintained at that value by addition of Albond P-52.

ANALYSIS

APPARATUS NEEDED:

5 ml	pipette
250 ml	Erlenmeyer Flask
50 ml	Burette
10 ml	Graduate
50 ml	Graduate(spatula)

REAGENTS NEEDED:

0.0575 M EDTA, disodium salt – dissolve 21.4 grams EDTA and 6 grams of CP grade NaOH in deionised or distilled water and dilute to 1 liter. Triethanolamine, 50% by volume.

Indicator Powder	1 gram of Eriochrome Black T indicator ground with 100 grams Sodium Chloride
Buffer Indicator	125 grams AR grade Ammonium Chloride dissolved in concentrate AR grade Ammonium hydroxide and diluted to 1 liter with Ammonium Hydroxide

PROCEDURE:

1. Pipette 5 ml sample of Albond P-52 working solution into 250 ml Erlenmeyer Flask.
2. Add 40 ml of 50% triethanolamine.
3. Add 10 ml of buffer solution.

4. Dilute to 100 ml with deionized or distilled water.
5. Add 0.25 gm to 0.50 gm Eriochrome black T indicator.
6. Immediately titrate with standard 0.0575 M EDTA solution until colour changes from red purple to blue.

CALCULATIONS:

Albond P-52 concentrations

No. ml EDTA titrated X 13.28 = ml/l Albond P-52

REPLENISHMENT:

The correct concentration is 200 ml Albond P-52 per liter of operating solution, replenish as required.

WASTE TREATMENT:

Solutions of Albond P-52 contain zinc metal and are alkaline. The pH of the Albond P-52 solution must be adjusted to 6-8 after treatment for zinc metal and prior to disposal in to a sewage system. Consult local agencies with regard to regulations concerning zinc meal disposal.

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