

BC-22 zinc water

Description:

BC-22 is a superior alloy zinc replacement process that can provide high-quality zinc replacement coatings on various aluminum alloy materials, including computer memory discs.

BC-22 can also be used for castings. Unlike the traditional zinc replacement process, BC-22 can provide a uniform, thin, dense and fine-grained zinc replacement layer with minimal biting to the aluminum surface. The characteristics of this coating ensure the maximum adhesion of the subsequent metal coating. Including electroless nickel, electroplated nickel and base copper.

BC-22 can provide some important operating benefits. It is a concentrated liquid type, which is easy to build and maintain. The bath is a diluted zinc solution, which is easy to wash, so that the zinc solution is brought into the subsequent electroplating bath at least. The tank liquid is easy to control, and the operating parameter control range is wide.

Features & advantages:

It can be applied to various aluminum alloys, including computer memory discs and die castings.

The zinc coating has the least bite corrosion to aluminum, provides the best adhesion and the characteristics of a pinhole-free nickel coating.

Concentrated liquid type is easy to build bath and maintain.

The tank has a long life and reduces operating costs.

Equipment:

Mild steel is used for the tank and related equipment. In order to prevent the galvanic cell reaction, the tank uses a rubber liner or gasket or electrically insulates the workpiece and the tank.

Operating conditions:

	Concentration range optimal	value
BC-22 rack plating	20-30% volume ratio	25%
BC-22 barrel plating	50-60% volume ratio	50%
Temperature	16-46°C	24°C
Time	15 seconds-1 minute	

Solution control & maintenance:

If the concentration of BC-22 is too low, it will bite more aluminum, and if the concentration is too high, it will be difficult to wash, and it will inhibit aluminum bite. The simplest control is to observe the uniformity of the zinc coating. Usually 1 gallon of BC-22 bath can handle about 200-350 square feet of aluminum surface area.

When there are significant bubbles on the aluminum surface, 10% of BC-22 during bath building needs to be added.

The bath liquid can be controlled by chemical analysis. There is a method for reference below. According to the concentration of the new bath solution and the addition of BC-22 to maintain the value of zinc content (controlled by specific gravity).

Concentration%	Sp.Gr
100	1.440
50	1.244
25	1.134

Analysis procedure:

Required reagents

0.0575M disodium salt of EDTA

Triethanolamine

1g acid mordant black T indicator with 100g NaCl

Buffer solution—125 g analytical grade ammonium chloride dissolved in 1 liter analytical grade concentrated ammonia water

Step:

- 1.5ml tank solution into a 250ml conical flask.
2. Add 40 ml of 50% triethanolamine.
3. Add 10 ml buffer solution.
4. Dilute to 100ml with pure water or deionized water.
5. Add 0.25-0.5g acid mordant black T indicator.
6. Titrate with 0.0575M EDTA standard solution until the color changes from reddish purple to blue.

Calculation:

$$\text{ml EDTA} \times 1.33 = \% \text{ BC-22 volume}$$

safety warning:

Bigley recommends that the operator read the safety data sheet of Bigley carefully before use. BC-22 is a corrosive liquid and can cause severe burns.

Wastewater treatment:

Before treating wastewater according to Bigley's wastewater treatment recommendations, users must understand local government regulations. If we build

If there is a conflict between the proposal and the regulations, the local government regulations shall prevail.

The solution is alkaline. Before the waste liquid is discharged, it needs to be diluted with water, and then the diluted acid is neutralized to a pH of 8-9. Be careful when handling, and add acid slowly and with stirring. The

clear liquid is pumped to the chemical wastewater treatment system, and the remaining sludge is gathered together and approved for safe landfill treatment.

Ordering Information:

Product	packaging
BC-22	30kg/drum