

TECHNICAL DATA SHEET

Brass Plating Process EB-120

Brass Plating process EB-120 is generally use for decorative purposes as top coat over bright nickel plated parts, This brass process gives a rich golden yellow color, but any shade pale yellow to reddish gold may be achieved from the same bath by varying the temperature and current density's.

Brass plating process normally applied for artificial jewelry, decorative furniture, door locks and house decorative interior. After brass plating should be dipped in 2.5-5% sodium dichromate solution or Non electrolytic lacquer/electrophoretic lacquer. Suitable for both Barrel & Rack plating system.

Make Up Method:

- Firstly clean the tank thoroughly
- Fill tank 2/3rd with RO water.
- Add required quantity of Brass Salt and stir properly.
- Add Ammonium Chloride and stir to dissolve.
- After addition make sure that all the salts are dissolved then add more water and level the tank till marked.

Solution Composition Rack:

Chemical	Ranges	Optimum For Hot	Optimum For Cold
Brass Salt EB-120	125-175 gm/ltr	150 gm/ltr	150 gm/ltr
Ammonium Chloride	3 gm/ltr	3 gm/ltr	3 gm/ltr

Operating Conditions For Rack:

Parameters	Ranges	Optimum for Hot	Optimum for Cold
Free Cyanide	6-8 gm/ltr	6 gm/ltr	8 gm/ltr
Copper Metal	6-9 gm/ltr	6 gm/ltr	9 gm/ltr
Zinc Metal	2-3 gm/ltr	2 gm/ltr	3 gm/ltr
Density at 15 °C	6.5-9 B°	6.5 B°	9 B°
Cathode current density	0.3-0.6 A/dm ²	0.6 A/dm ²	0.4 A/dm
Temperature	15-50°C	40°C	25°C
pH	9.8-10.8	9.8	10.5
Agitation	Mechanical	Mechanical	Mechanical
Voltage	2.5-4 V	2.5-3 V	3-4 V
Plating Time	1-2 minutes	1 minute	1 minute

Solution Composition Barrel:

Chemical	Ranges	Optimum For Hot	Optimum For Cold
Brass Salt EB-120	175-225 gm/ltr	200gm/ltr	200 gm/ltr
Ammonium Chloride	3 gm/ltr	3 gm/ltr	3 gm/ltr

Operating Conditions For Barrel:

Parameters	Ranges	Optimum for Hot	Optimum for Cold
Free Cyanide	12 gm/ltr	12 gm/ltr	12 gm/ltr
Copper Metal	12 gm/ltr	12 gm/ltr	12 gm/ltr
Zinc Metal	4 gm/ltr	4 gm/ltr	4 gm/ltr
Density at 15 °C	12-13 B°	12 B°	13 B°
Cathode current density	1-1.5 A/dm ²	1.2 A/dm ²	1.5 A/dm
Temperature	20-40°C	40°C	25°C
pH	10.2-11	10.7	10.7
Agitation	Not Required	Not Required	Not Required
Voltage	6-10 V	6 V	8 V
Anode	Lead Free Brass	70% Copper 30% Brass Anodes	70% Copper 30% Brass Anodes

Replenishment:-

The metallic concentration is normally maintained by dissolution of the anodes and should remain fairly constant for long periods. To reduce the free cyanide content, an addition of zinc cyanide and copper cyanide should be made in the proportion of 0.3 gm/litter of zinc cyanide and 0.6 gm/litter of copper cyanide for each 1 gm/litter of free sodium cyanide in excess.

Cautions:-

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

Equipment's:-

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