

ZINCOPASS BLUE 124

INTRODUCTION

Zincopass Blue 124 is a single stage trivalent dip process designed to give excellent corrosion protection and produce a bright, haze-free, blue chromate finish on zinc plated components. The process is economical due to its low operating concentration and simple to operate giving a high quality finish.

BENEFITS

- Greater than 144 hours salt spray in rack
- Easy to control
- Wide operating window
- Does not contain hexavalent chromium

SOLUTION MAKE -UP

Zincopass Blue 124

3-5% v/v with water

It is essential that the tanks to be used for Zincopass Blue 124 are thoroughly cleaned and leached before any product is introduced.

If in any doubt as to the cleaning procedure, please contact PMD Technical Department.

1. Half fill tank with clean water.
1. Add required quantity of Zincopass Blue 124.
2. Top up to working level and mix well.
3. Heat to operating temperature.
4. Adjust pH.

OPERATING DATA

Concentration	3-5%
Zinc	<15g/L
Iron	<100ppm
pH	1.7-2.5
Temperature	20-25°C
Immersion time	20-50 secs
Work movement	Work movement/air
Extraction	Recommended

EQUIPMENT

Tanks	Polypropylene or polyethylene
Heaters	PTFE coated

PROCESS SEQUENCE

1. Zinc plate.
2. Cold water rinse.
3. Cold water rinse.
4. 0.5% v/v nitric acid.
5. Rinse.
6. Zincopass Blue 124.
7. Cold water rinse.
5. Dry.

MAINTENANCE AND CONTROL

Addition rates can be based on the following:

1.5-2.5lts/1000ft² (100m²)

Any components that fall into the passivate solution should be removed immediately. If components are left in solution the bath life will be greatly reduced.

pH should be raised with Sodium Hydroxide solution or lowered with Nitric acid. Additions should be complimented by regular analysis using the method given.

ANALYSIS METHOD

Reagents

- 20% w/v sodium hydroxide solution
- Hydrogen peroxide solution
- Conc hydrochloric acid
- Ammonium bifluoride
- Potassium iodide
- 0.1N Sodium thiosulphate (standard volumetric solution)
- Iodine indicator

Method

1. Pipette a 20ml aliquot into a 500ml conical flask.
1. Add 100ml DI water and 10ml 20% sodium hydroxide solution.
2. Slowly add 20ml hydrogen peroxide.

3. Boil for 30 minutes.
4. Allow to cool.
5. Add 10 mls hydrochloric acid and 3gms ammonium bifluoride.
6. Add 2gms potassium iodide.
7. Titrate with 0.1N sodium thiosulphate to a pale straw colour. Add iodide indicator and continue titration to a green end point.
8. Record titre = t mls.

Calculation

$t \times 0.28 =$ % Zincopass Blue 124

Replenishment

For every 1% required add 10ml/L Zincopass Blue 124

NOTES

Zinc thickness For maximum corrosion resistance it is recommended that a minimum thickness of 8µm zinc is present.

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
Zincopass Blue 124	237019

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