LANTHANE BLUE 126

Blue Trivalent Passivate for All Zinc Deposits

COVENTYA

LANTHANE BLUE 126

Features

- Cr(VI)-free passivate
- Low temperature (20 - 25° C)
- Suitable for rack and barrel applications
- Can be applied to acid, alkaline and cyanide zinc deposit
- Can be used with POSTDIP or FINIGARD post treatments
- Exceptional bath life
- Economical consumption
- Good corrosion resistance

Example of rack plating

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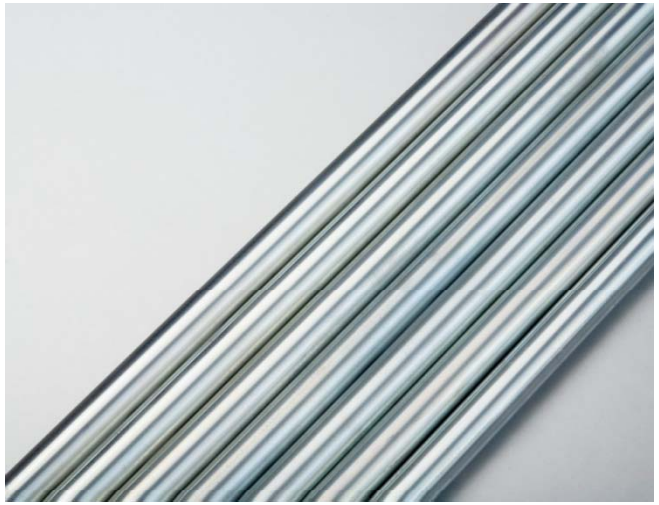
Process steps

- COVENTYA Zn Plate (8 – 12 µm)
- Water rinse (2 x)
- Activate (0.5 % HNO_3)
- Water rinse (2 x)
- LANTHANE BLUE 126
- Water rinse (2 x)
- POSTDIP or FINIGARD (if applicable)
- Draining and drying (10 min, 60 – 80 ° C)



Operating Parameters for Optimal Blue/Optimal NSST Acid Zinc

Parameter	Range	Optimum	Unit
LANTHANE BLUE 126	40 -70	70	ml/l
pH-Value	1.6 – 2.4	2.0	
Temperature	20 - 25	22	°C
Immersion time	20 - 50	30	sec
Agitation	moderate air		

Note: As film thickness increases (via time, %, pH, temp), color will change from Purple → Blue → Yellow

Operating Parameters for Optimal Blue/Optimal NSST Alkaline Zinc

Parameter	Range	Optimum	Unit
LANTHANE BLUE 126	40 -60	50	ml/l
pH-Value	1.6 – 2.4	2.0	
Temperature	20 - 25	22	°C
Immersion time	20 - 50	30	sec
Agitation	moderate air		

Note: As film thickness increases (via time, %, pH, temp), color will change from Purple → Blue → Yellow

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Temperature:

- Use of automatic temperature regulation is strongly recommended.

Concentration:

- Fluctuations in bath concentration should be avoided.
- The use of automatic replenishment pumps is strongly recommended to maintain the stability of the process.
- Too low concentrations should be avoided.

pH-Value:

- The optimum pH-value is between 1.6 & 2.5.
- The speed of the passivate reaction decreases significantly at pH levels > 2.5.
- Continuous pH-value control is required. To adjust, use nitric acid 65% or caustic soda solution 30%. Fluoride resistant probes are required.

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Immersion time:

- The optimum time is between 20 to 50 s.
- At higher bath temperatures it may be necessary to reduce the time below 30 s.

Rinsing:

- Two step, counter-flow rinses are recommended.
- In rack applications, additional spray rinses are useful. If less then two rinse steps are available, spray rinsing is strongly recommended.

Heating

- Immersion heaters have to be sheathed in plastic, PVDF or Teflon.

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Replenishment:
per 100 m^2 (1000 Ft^2) of treated surface

Theoretical quantity based on Chromium layer deposited:

0.3 l - 0.4 l LANTHANE BLUE 126

With drag-out:

1.8 l – 2.4 l LANTHANE BLUE 126

(1 gallon / 1,700-2,500 Ft^2)

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Agitation:

•Air agitation must be moderate and uniform.

Replenishment Equipment:

•The use of automatic replenishment pumps, pH control and temperature control allow for uniform, continuous production and are strongly recommended. If not available, frequent, small additions/adjustments are critical.

Corrosion resistance

- **Acid Zinc:**
  - **White rust corrosion resistance according to ASTM B 117/97 and to DIN EN ISO 9227:**

Systems	RACK	BARREL
LANTHANE BLUE 126	144 - 168 h	144 - 168 h

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Corrosion resistance

- **Alkaline Zinc:**
  - **White rust corrosion resistance according to ASTM B 117/97 and to DIN EN ISO 9227:**

Systems	RACK	BARREL
LANTHANE BLUE 126	120- 144 h	120 - 144 h

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Metallic Contamination Limits:

Zinc: maximum 10-15 g/L

Iron: maximum 1.0 – 1.5 g/L

Copper : maximum 10 mg/l