# Technical Data Sheet

## Extreme Blue Passivation EB-401 (HEXAVALENT)

Extreme blue passivation EB-401 is a low cost and easy to handle good pH stability, good corrosion resistance and an excellent addition to all zinc coated surfaces, an immediate and throw rinse is recommended after extreme blue passivation to avoid any iridescent.

**Make-Up Method:-**

- Firstly clean tank thoroughly (PP, PVC Tank Recommended)
- Add required quantity of EB-401.
- Maintain Operating level of tank with RO/Line water.
- Check and adjust pH with nitric acid. To lower pH add sodium hydroxide to raise pH

**Operating Parameters:-**

- **Temperature**:- Ambient Temperature
- **Concentration**:- Passivation salt 6-10gm/Litter (Optimum 6gm/ltr)
  Nitric Acid 10-20ml/litter (Optimum 15ml/ltr)
  Hydrogen 1.5-3ml/litter (Optimum 2ml/ltr)
- **Residence Time**:- 15-40 second`s
- **pH**:- 1.5~2.0

**Process:-**

- Zinc Plating (10~12 micron recommended)
- Water rinse
- Water rinse
- Nitric Acid 67% (0.3~0.5%)
- Water rinse
- Blue Passivation
- Water rinse
- Water rinse
- Sealant dip (20~40 Second)
- Hot Dry (50~60 ºc)

**Replenishment:-**

- EB-401 addition depends on work carried out and drag out.
- Add 1.0gm/litter Blue salt for required shade adjustment.
- Add 2.5ml/litter nitric acid for adjustment of pH.
- Add Hydrogen 0.3ml/litter

**Analysis Method Of Blue Passivation:-**

- Pipette 50ml of the Blue Passivation solution into a 250ml Erlenmeyer flask
- Add 50ml of water and 10ml of 25% HCL
- Add 2gm of KI crystals, mix to dissolve and allow solution to stand for about 2 minutes
- Titrate with 0.1 N Sodium thiosulfate to a straw color, add about 2 ml of starch solution And continue titration to a blue green end point.
- CALCULATIONS :
  4 x (ml $Na_2S_2O_3$ x Normality $Na_2S_2O_3$) = Blue Passivation



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**Testing Method Of Nitric Acid:-**

- Pipette 50 ml of the Super Blue Passivation solution into a 250 ml Erlenmeyer flask.
- Add 100 ml of water and about 5 drops to methyl orange indicator.
- Titrate to a yellow end point with 1 N NaOH.

CALCULATIONS:
1.2 x (ml NaOH x Normality NaOH) = cc/liter 42oBe nitric acid.

**Cautions:**

- Must Wear PPE's Rubber Gloves, Long shoes andapron during chemicals mixing.
- Care should be taken while adding nitric acid.

**Waste Treatment:**
Hexavalent Blue Passivation EB-401 solutions contains chromic acid (hexavalent). It should be neutralized with ferrous sulfate to trivalent stage and upon reduction should be neutralized with alkali before discarding into sewerage line.




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