

# DATA SHEET

## Deveco 407

Deveco 407 is a golden chromate coating for electroplated zinc and electroplated cadmium. The coatings produced have excellent corrosion resistance and are an excellent base for paint.

### MAKE-UP AND CONTROL:

Deveco 407	0.5 to 1.5%
Time	15 to 45 seconds
Temperature	60 to 90°F
pH range	1.4 to 1.8

Prior to using the chromate, a 0.25% nitric acid dip is recommended.

### ANALYTICAL CONTROL - Hex-chrome titration:

1. Pipette 10 mls sample of chromate solution into a 250 mls flask.
2. Add 100 mls D.I. water.
3. Add 2 grams of Ammonium Bifluoride.
4. Add 30 mls 50% Hydrochloric Acid.
5. Add 10 mls of 10% Potassium Iodide solution.
6. Titrate with 0.1N Sodium Thiosulfate to light straw color.
7. Add 5 mls of 1% Starch solution.
8. Continue titration with 0.1 N Sodium Thiosulfate. End-point: blue → colorless.
  - a. (Absence of blue should persist for 30 seconds).

Calculation: Mls Thiosulfate x 0.12 = % Deveco 407

Deveco 407 does not require analytical control for effective chromate deposition. It can also be controlled by pH.

- If the pH falls below 1.4 sloughing will occur.
- If the pH rises above 1.8 the color of the chromate will be too light or will not be visible at all.
- If the pH rises above 1.8 lower the pH by using a hand held pH meter and adding Deveco 407 to the tank until the pH falls within the operating range.
- If the pH drops below 1.4, contact Deveco.

### CAUTION:

This product contains chromates and is acid in nature. Contact of salts or solution with skin or eyes should be avoided. In case of contact, flush contaminated area with a large amount of water. When handling this product, protective clothing, i.e. rubber apron, gloves, boots, and goggles should be worn.

**Read Material Safety Sheet before using this product.**

**EQUIPMENT:** Deveco 407 solutions require polyethylene, stainless steel, or koroseal lined tanks.

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