

DATA SHEET

Deveco Tri-Kote Hardener

Deveco Tri-Kote Hardener is an additive used with trivalent clear chromates that will increase the corrosion protection of the chromate on zinc plate, typically to exceed **120 hrs** protection to white corrosion in salt fog testing.

Deveco Tri-Kote Hardener, used at 5% in a 5% **Deveco Tri 108** solution, increases the corrosion resistance to exceed 120 hrs to white corrosion.

A solution of 10% **Deveco Tri 108** and 2.5% **Deveco Tri-Kote Hardener** also exceeds 120 hrs to white corrosion,

Deveco Tri-Kote Hardener, when used at 2% in a 10% **Deveco Tri 102** solution, increases the corrosion resistance to exceed 144 hrs to white corrosion.

Deveco Tri-color Concentrates produce only slight or no color to the chromate deposit when used with **Deveco Tri-Kote Hardener**. Their use is not recommended.

MAKE-UP AND CONTROL:

High-corrosion	Recommended	Range
Deveco Tri 108	5% by volume	4 to 6 % by volume
Tri-Kote Hardener	5% by volume	4 to 6% by volume
Temperature	80 °F	70 to 100 °F
Time	45 seconds	30 to 60 seconds
PH	2.0	1.8 to 2.5

To lower the pH upon make-up, use Nitric Acid. To raise the pH, use 50% Caustic Soda

High-corrosion	Recommended	Range
Deveco Tri 102	10% by volume	8 to 12 % by volume
Tri-Kote Hardener	2% by volume	1.5 to 3% by volume
Temperature	90 °F	80 to 100 °F
Time	45 seconds	30 to 60 seconds
PH	2.0	1.8 to 2.2

To lower the pH upon make-up, use Nitric Acid. To raise the pH, use 50% Caustic Soda

ANALYSIS:

1. The Tri-Kote Hardener concentration can be analyzed by testing for PPM Nickel on the A.A.
2. Deveco Tri-Kote Hardener contains 1,000 PPM Nickel, so each 1% Tri-Kote Hardener is represented by 10 PPM Nickel.

$$(\text{PPM Nickel}) \times (0.1) = \% \text{ Deveco Tri-Kote Hardener in the chromate solution.}$$

CAUTION:

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.

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