



## **FastKoat® CR-X-06C Chromate(Cr<sup>6+</sup>)-Free Passivator**

**- Excellent Corrosion Resistance for Zinc-Plated Substrates**

### **Characteristics:**

1. Excellent Corrosion Resistance.
2. Saving Conventional Sealing Process.
3. Excellent Paint Coatability and Water Resistance.
4. Contains no Chromate (Cr(VI)-Free).
5. Conforms to RoHS Regulations.
6. Conforms to Stringent VOC Regulations.
7. Easy to Use.
8. Economical.

### **Description:**

Currently the conventional way of treating zinc-plated metals is, in place of toxic chromates (VI), to use Cr(III)-containing passivator for controlled contacts under acidic conditions, followed by water rinses and forced dry. In order to improve their corrosion resistance, however, the workpieces so obtained have to be subject to one more wet step of sealing, to meet the final consummation. This traditional process of plating – passivation - sealing is essential in zinc-plating industry. But more and more recently there are raising challenges and calls to upgrade the performance, while process, resource, and cost can be saved.

**FastKoat® CR-X-06C** is an aqueous complex solution containing chrome (III) ion in nano-grade dispersion particles. When used in properly diluted concentrations, the nano-particles will impart excellent corrosion resistance to the zinc-plated workpieces, at the minimal expense of their appearances.

In practical applications, **FastKoat® CR-X-06C** has to be diluted preferably ten times with deionized water, as the ready-to-use to activate the passivation. Work pieces, when freshly zinc-plated and rinsed, are immersed in the diluted **FastKoat® CR-X-06C** solution for 30~40 seconds, followed right after by the rinse thoroughly two or three times with deionized water, to remove any trace of residues. Then centrifugal and accelerated heat-drying conclude the finishes as in conventional process.

As long as the concentration and pH value of diluted **FastKoat® CR-X-06C** solution are closely monitored, maintained and regularly filtered, to avoid any contaminations, its performance and consistency can be assured.

In general, the corrosion resistance of zinc-plated surface is highly affected by the electroplating conditions and after-finishes therewith. When used properly,

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**FastKcoat**<sup>®</sup> CR-X-06C can improve the corrosion resistance of zinc-plated work pieces significantly, **much better than the conventional chrome (III) – containing passivators**. Additionally, the zinc-plated substrates treated with **FastKcoat**<sup>®</sup> CR-X-06C have shown the same gloss with light blue tone and excellence in paint-coatability.

**FastKcoat**<sup>®</sup> CR-X-06C contains no chromate (Cr(VI)) or any other heavy metal salts which may raise environmental or healthiness issues. There are also no organic volatiles detected in the **FastKcoat**<sup>®</sup> CR-X-06C solution. In summary, **FastKcoat**<sup>®</sup> CR-X-06C meets the highly stringent regulations, such as RoHS directives.

### Suggetions of Use:

#### **Note:**

**FastKcoat**<sup>®</sup> CR-X-06C is mildly acidic and as a result, general precautionary safety measures, such as goggles, gloves and well-ventilated areas, are required, when handling the solutions. Avoid any direct contact of **FastKcoat**<sup>®</sup> CR-X-06C solutions with skin and eyes. Once contacted by accident, thorough rinse with water immediately is suggested.

An initial suggestion of the procedure for using **FastKcoat**<sup>®</sup> CR-X-06C in passivation can be listed as follows. However, the actual concentrations of **FastKcoat**<sup>®</sup> CR-X-06C required for the purpose are subject to variations of individual corrosion targets and other options.

To ensure consistent performance, the prepared on-line solution of ten-times diluted **FastKcoat**<sup>®</sup> CR-X-06C has to be closely monitored and controlled, with respect to the pH value in the range of 2.5 ~ 3.8, and its non-volatile within 10% of its initially prepared concentration. To avoid any potential contamination from carry-over, the zinc-plated metal pieces should be rinsed thoroughly with D.I. water, before any contact with the **FastKcoat**<sup>®</sup> CR-X-06C solution.

Furthermore, A daily filtration of the prepared **FastKcoat**<sup>®</sup> CR-X-06C passivating solution after use is highly recommended, to remove any contaminated impurities. The holding tank containing the **FastKcoat**<sup>®</sup> CR-X-06C solutions has to be covered after use. The containers and tools in contact with the **FastKcoat**<sup>®</sup> CR-X-06C have to be cleaned with water immediately after use.

### Specifications:

Appearance:

Dark blue solution

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Chemical Type:	Organo-Inorganic Complexes
Active Ingredient, 110°C x 2 hour	15.0 ± 1.0 %
Specific Gravity, g/cm <sup>3</sup> , 25 °C	1.10 ± 0.01
pH Value	1.5 ± 0.5

### Surggestions of Storage:

Unused, sealed **FastKoat**<sup>®</sup> CR-X-06C in original container is guaranteed with pot life of six months as minimal, if stored in a cool, well-ventilated area and avoid any direct exposure to sunlight.

For those open, untempered **FastKoat**<sup>®</sup> CR-X-06C in original containers, we suggest them sealed immediately after use, and be used up within three months.

For those used, tempered **FastKoat**<sup>®</sup> CR-X-06C, when not in-use for production, we suggest them, to avoid contamination and minimize evaporation, be covered securely or even better, sealed tightly in a clean contained in a cool, well-ventilated area. They must be used up in earliest time.

### Packages:

**FastKoat**<sup>®</sup> CR-X-06C is supplied in two forms of packages, namely, 20 kilograms in plastic pails and 200 kilograms in plastic drums, respectively.

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