

Product Data Sheet:ELKN-CEMP-043100802B

FastKoat[®] CEMP-043 Non-chromated nano-grade sealer

– for maximizing corrosion resistance of passivated galvanized metals

Characteristics:

1. Excellent corrosion resistance.
2. Excellent water resistance.
3. Chrome free, conforming to any environmental requirements.
4. Complying with any stringent VOC regulations.
5. Easy to use and no hurt to the zinc sheen on surfaces.
6. Non-toxic, pollution free.
7. Economical, dilutable for different targets of corrosion resistance.

Introduction:

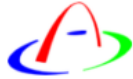
FastKoat[®] CEMP-043 is an excellent aqueous sealer for galvanized substrates, to reinforce the corrosion resistance and acid rain resistance thereof. With nano-grade hybrid complexes in the solution with the pH value in the range of 5~6, **FastKoat[®] CEMP-043** can be used safely, without blurring the original zinc sheen on the surfaces, typically seen with acidic sealers..

FastKoat[®] CEMP-043 works efficiently and effectively on well-passivated galvanized metal pieces with respect to the corrosion resistance. In practice, depending on the requirements of anti-corrosion, **FastKoat[®] CEMP-043** can be diluted readily with deionized water before applying onto metal surfaces. As an initial trial and error, it is recommended to dilute with DI water down to 1/10 or its original concentration, namely, **FastKoat[®] CEMP-043** : DI water = 1 : 9, by weight, to find out its result of salt spray test (ASTM B 117), against any target value, so that fine-tunings can be followed, until the goal is achieved.

Strictly speaking, for corrosion resistance only, the galvanized metals, after rinsing or cleaning, have to be passivated properly, before applying thereonto **FastKoat[®] CEMP-043**. In other words, **FastKoat[®] CEMP-043** has to be used onto passivated surfaces only. For this reason, conventional passivation with chromate (Cr (VI)) or chromic (Cr (III)) solution are deemed necessary.

In general, the corrosion resistance of galvanized metals depends on the thickness of zinc or zinc alloy, as well as the chemical treatment

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thereafter. **FastKcoat**[®] CEMP-043 can be applied on passivated galvanized surfaces, by dipping, brushing, spraying or rollers in a conventional way, followed by drying at 100 ~ 150 °C for 10 ~ 15 minutes, to achieve a satisfactory protective film. With applications conditions properly and closely monitored, **FastKcoat**[®] CEMP-043 can be an excellent synergizer with any performing passivating agent for the corrosion protection of galvanized metals.

In addition, **FastKcoat**[®] CEMP-043 is chrome free, and contains extremely low hazardous chemicals nowadays seriously concerned in the environmental and health issues. Furthermore, there are only minimal volatile organic contents. Therefore, to meet the ever more stringent regulations, such as RoHS and VOC, etc., **FastKcoat**[®] CEMP-043 can be a reliable finishing agent for the galvanizing industry.

Conventional Electro galvanization Process:

Electro galvanization → Rinse → Passivation with Cr⁶⁺ or Cr³⁺ → Rinse → Dewatering → Drying

Recommended Process for using **FastKcoat[®] CEMP-043:**

Electro galvanization → Rinse → Passivation → Rinse → Treated with **FastKcoat**[®] CEMP-043 → Dewatering → Drying (100 ~ 150 °C x 10 ~ 15 min.)

△ Omittable

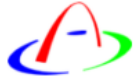
Specifications:

Appearance::	Light burgundy translucent solution
Chemical Type:	Complexed salts
Non-volatile, 110°C x 2 hour	16.0 ± 1.0 %
Sp. gravity, gm/ml, 25°C:	1.05 ± 0.01
pH Value:	5.5 ± 0.5

Suggetions:

1. Preparation: Dilute **FastKcoat**[®] CEMP-043 readily with proper amount of deionized water at room temperature in a holding tank, preferably of plastic or stainless steel type.

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2. In Use: Closely monitor and control the pH value of **FastKoat**[®] CEMP-043 solution on-line in the range of 6~8, and its non-volatile within 10% of its initially prepared concentration. To avoid any potential contamination, the galvanized metal pieces should be rinsed thoroughly before contact with the **FastKoat**[®] CEMP-043 solution.
3. After Use: : A daily filtration of the prepared **FastKoat**[®] CEMP-043 after use is highly recommended, to remove any contaminated impurities. The holding tank containing the **FastKoat**[®] CEMP-043 solutions has to be covered after use. The containers and tools in contact with the **FastKoat**[®] CEMP-043 have to be cleaned with water immediately after use.

Packages:

20 kilograms in PE plastic pails or 200 kilograms in PE plastic drums ◦

Test Results:

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