

Cobalt-Free Passivation For Zinc and Zinc Alloys

High Performance, Safer Passivation

Cobalt salts like cobalt nitrate, cobalt sulphate and cobalt carbonate have been included in the SVHC list under the REACH regulation, prompting users to explore alternatives in the event of a future prohibition of use.

Technic and Yuken are constantly engaging in R&D activities to gradually replace substances that may be harmful to human health and the environment, thus protecting both end-users and operators in the waste management field.



We supply an expanding range of **cobalt-free passivations** for alkaline, acid zinc and zinc alloys in a variety of colors, depending on the level of corrosion resistance required.

Our cobalt-free passivation product line includes:

- **Wonder CF Y1** - Clear/blue passivation for alkaline and acid zinc, hexavalent chromium and cobalt-free.
- **Wonder CF-B 10** - Black cobalt-free passivation for alkaline and acid zinc.
- **Wonder CYN 22** - Clear/blue cobalt-free passivation for alkaline zinc nickel.

Features

- Cobalt-free chemistry
- Free from substances included in the SVHC list
- Can be used to obtain iridescent appearance
- Wonder CF Y1 and Wonder CF-B 10 can be used for both acid and alkaline Zn plating solutions

Benefits

- Safer handling
- Stable corrosion performance, including damaged areas
- Safer, cheaper waste management
- Superior thickness distribution
- High corrosion performance, thanks to self-repairing capabilities
- Reduced replenishing



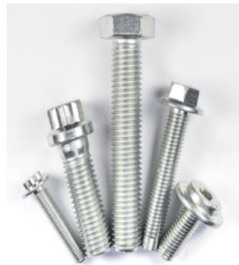
Cobalt-Free Passivation for Industrial Applications

Corrosion Resistance Test over Zinc Plating

WONDER CFY1 Concentration: 120 ml/l pH: 2.3 Time: 30 sec. Zn plating thickness: 9 – 14 μm	Lubrus C12A Solid content: 21- 25% Viscosity: 21 -24 sec. (DIN Cup #3) Drying temp: 100° C	WONDER CF-B10A/B/C Concentration: 50/100/40 ml/l pH: 2.40 Time: 60 sec. Zn plating thickness: 9 – 13 μm	Lubrus K12A Solid content: 21- 25% Viscosity: 21 -24 sec. (DIN Cup #3) Drying temp: 100° C
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Process Sequence	0 hrs.	800 hrs.	1200 hrs.
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WONDER CFY1
+
LUBRUS C12A



WONDER CF- B10
+
LUBRUS K12A



Process Sequence	1500 hrs.	2000 hrs.
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WONDER CFY1
+
LUBRUS C12A



WONDER CF- B10
+
LUBRUS K12A



Red rust occurred at 1680 hrs.