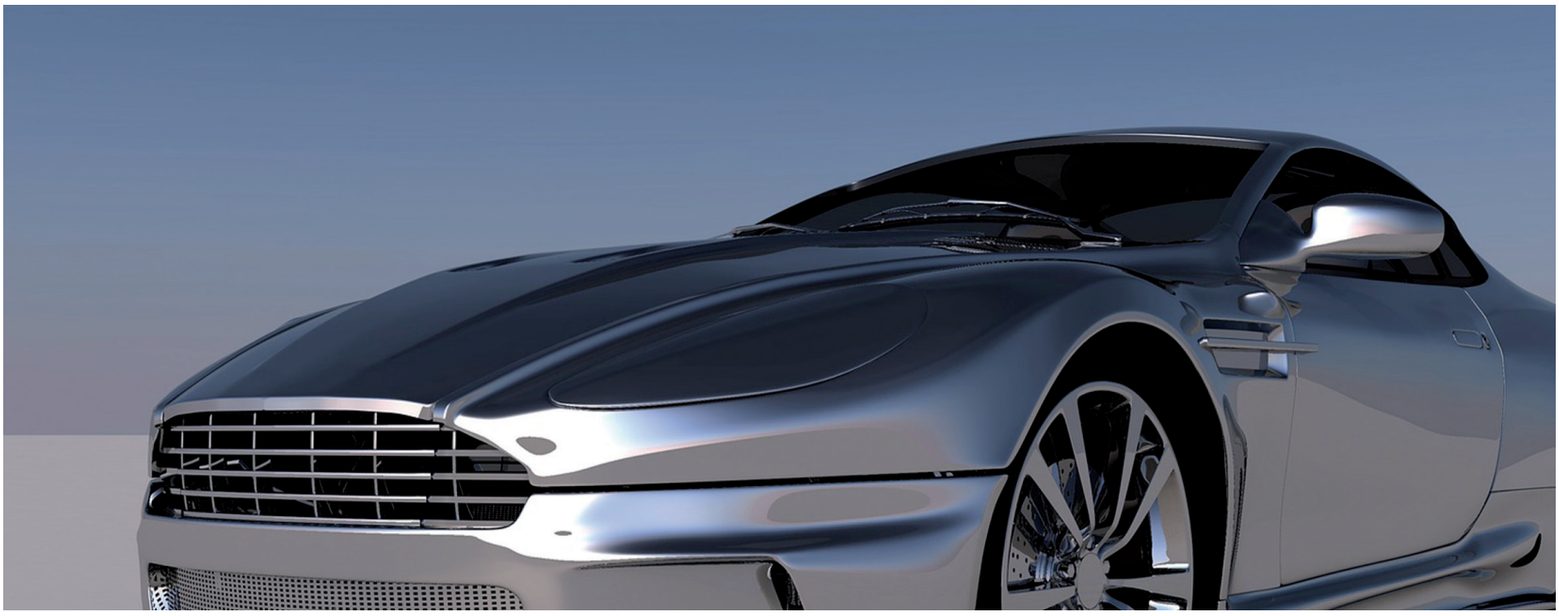
ANTI-CORROSION
COATING
ON ZINC

ZEC-COAT 888®



- THIN FILM
- HIGH CORROSION RESISTANCE
- CHROMIUM-FREE
- COATING THICKNESS: 1µm
- BAKING AT 120°C
- CCT 20-40 CYCLES
- SST 200-400 WR, 720-1000 RR

GLOMAX IS ENGAGED IN RESEARCH
FOR AN ENVIRONMENTAL-FRIENDLY CHEMISTRY

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GLOMAX

CHEMICAL PERFORMANCE

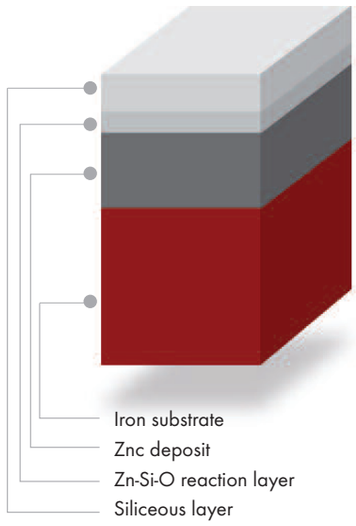
ZEC COAT 888®

Hoden Seimitsu Kako Kenkyusho Co. Ltd. (HSK) has developed a perfectly chromium- free corrosion inhibitive coating for zinc deposits. The product is designed to meet the restrictive legislation for heavy metals such as ELV and RoHS.

HODEN SEIMITSU KAKO KENKIUSHO CO., LTD.

CORROSION INHIBITING MECHANISM OF ZINK PROTECTOR ZEC 888

When Zink Protector ZEC-COAT 888® is applied upon a galvanized surface, two layers are formed: one is the outer siliceous coating and the other is a reaction layer containing zinc, siliceous and oxygen. When a small amount of water moisture reaches the reaction layer through the nano-sized pores of the external siliceous coating, invisible portions of white rust form. Although the white rust would be generated in the reaction layer, surrounding siliceous matrix suppresses the growth of white rust and extends the time until it grows to be visible. The white rust generated in the reaction layer properly acts as passivation film together with the reaction layer. Due to the water shielding effect of the passivation film composed of nano-sized white rust and the reaction layer, the zinc-dissolution process (sa crificial corrosion inhibitive effect) would be kept for an extended period, and hereby able to protect steel substrate for a long time.



APPLICATIONS

CURRENT PROCESS	ALTERNATIVE PROCESS	OTHER MERIT
Change of metal substrate • Stainless steel	Zinc-nickel plating + Cr^{3}+ (silver/black) + **ZEC888** Zinc plating + Cr^{3}+ (silver, black) + **ZEC888**	Stability of friction coefficient
Substitution of alloys • Zn/Ni + Cr^{3}+ sealer • Zn/Fe + Cr^{3} + sealer	Zinc plating + Cr^{3}+ (silver, black) + **ZEC888** Zinc plating + (**ZEC11**) + **ZEC888** Zinc plating + **ZEC55** + **ZEC11** + **ZEC888**	Stability of friction resistance Nickel-free
Perfect chromium-free • Zinc plating + Cr^{3}+ (black) sealer	Zinc plating + **ZEC55** + **ZEC11** + **ZEC888**	Stability of corrosion resistance
Shorter process • Zinc diecast + Zinc plating + Cr^{3}+ sealer	Zinc plating + **ZEC888** Zinc diecast + Cr^{3}+ + **ZEC888**	Uniformity of color and corrosion resistance
Thickness reduction • Zinc flakes (2 coats 2 bakes)	Zinc flakes (1 coat, 1 bake) Zinc plating + (**ZEC11**) + **ZEC888** Zinc plating + Cr^{3}+ + **ZEC888**	Stability of corrosion resistance

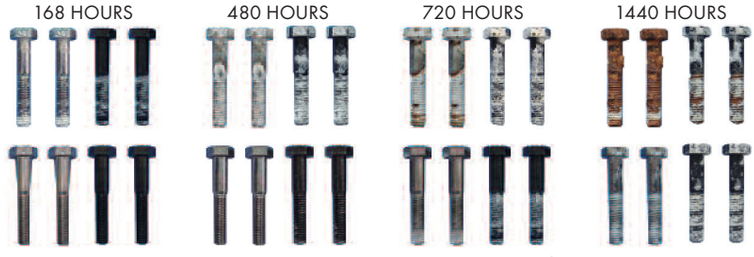
IMPROVE AND STABILIZE CORROSION RESISTANCE

Apply diluted ZEC888 on trivalent passivation to enhance corrosion resistance.

NEUTRAL SALT SPRAY RESULTS (ISO 9227)

Zinc plating + CR^{3} (silver, black)

Zinc plating + CR^{3} (silver, black) + ZEC-888 (70%)



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