

ELPANG Upgrade 300

Enhances alkaline zinc plating corrosion resistance **without new equipment**.
60~96 hr white rust / 300~500 hr red rust while maintaining cost and production efficiency.

Basic specs are no longer enough.
Keep the existing line and increase product value.

The Market Is Changing

Low-cost plating competition makes price-only profitability difficult.
Global customers now require higher corrosion resistance, uniform appearance, and reliable quality after processing.

Raise sales value with enhanced corrosion resistance while maintaining cost competitiveness.

Why ELPANG Upgrade 300 Is Needed

Does white rust remain a concern even when a sealer is used?

Even with a sealer, electro-galvanizing has clear corrosion-resistance limits, including early white rust. ELPANG System forms an inorganic coating layer that blocks corrosive agents, upgrading existing plated products to high-corrosion-resistance products. **It retains the existing plating color and production line while delivering more than twice the corrosion resistance of conventional plating.**

ELPANG Upgrade 300 Performance Comparison

Category	Sealer-Applied Electro-Galvanizing	ELPANG Upgrade 300
Application Purpose	Economical general-purpose products	Improve corrosion resistance of existing-spec products
Corrosion Resistance (SST, White Rust)	24~48 hr	60~96 hr
Corrosion Resistance (SST, Red Rust)	120hr	300~500 hr
Product Positioning	Price-oriented basic specification	Balanced price-performance specification
Application Condition (Plating Thickness) (XRF basis)	3~5 μm	3~10 μm

Expected Benefits

01

Use Existing Equipment

Improve performance while keeping the existing plating line and thickness.

02

Minimize Investment

Upgrade post-treatment without building new large-scale equipment.

03

Increase Added Value

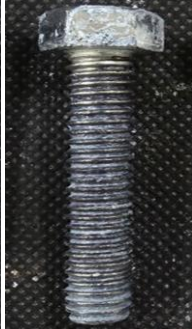
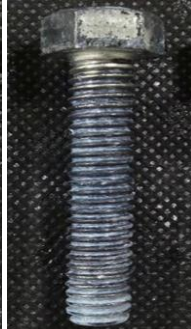
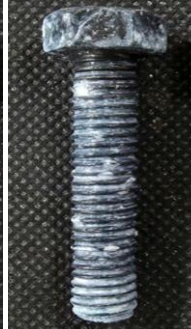
Add corrosion-resistance specs to position economical products as higher-grade items.

04

Expand Order Scope

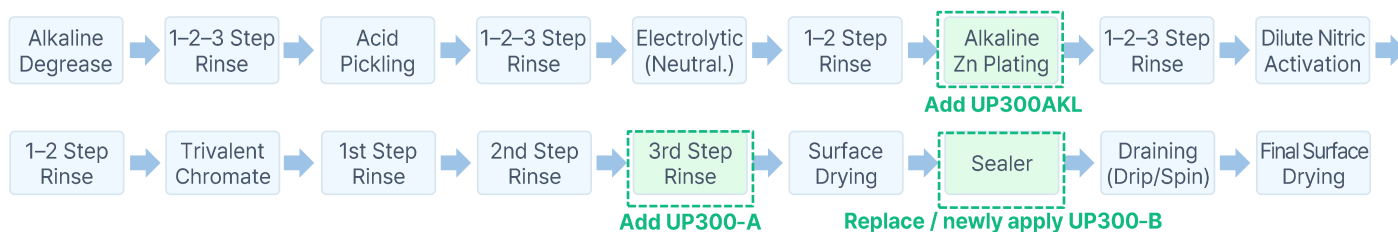
Respond to products requiring higher corrosion resistance than basic specs.

Corrosion Resistance Comparison

Category	Before Test	SST 48hr	SST 72hr	SST 120hr	SST 240hr	SST 300hr
Conventional Electro-Galvanizing						
ELPANG Upgrade 300						

* The performance data specified herein is achieved only when the zinc plating and trivalent passivation processes are properly controlled. Therefore, please conduct preliminary testing before application.

ELPANG Upgrade 300 Solution and Application Process



- **Alkaline zinc plating additive (bonding-type water-based inorganic material):** UP300AKL (added to the existing plating bath); see the TDS; no change to existing plating chemicals.
- **Pre-sealer (structure-reinforcing water-based inorganic material):** UP300-A (added to the 3rd chromate rinse), concentrate 1 : water 100
- **Main sealer (reactive water-based inorganic material):** UP300-B (existing sealer replacement or new application); rack 1:10; barrel [initial] 1:5 / [replenishment] 1:8-10 (concentrate:water)
- **Maintains the existing plating color**

ELPANG Operating System Program

We provide dedicated ELPANG solutions and an operating management system to help customers consistently maintain their target performance.

Process Control

Current density / bath control

Quality Control

SST & quality tracking

Data Support

Process optimization

* Operated as a monthly online training and subscription service. Please inquire separately for pricing.

Upgrade corrosion resistance with ELPANG Upgrade 300 and secure differentiated competitiveness!

For higher corrosion resistance or ELPANG equipment for large steel-structure production, please inquire about KEMP ELPANG Upgrade 500 (SST 500 hr) and Full System (SST 720 hr / 1,000 hr).



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