



Improving the  
Performance  
of Electroplating



New Fastener LLC

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Greatly improves the anti-corrosion performance of traditional hot-dip galvanizing and eletroplating.

**FastCoat** is available in various colors and configurations to match customers' specific application requirements.

**FastCoat** is a combination of eletroplating and coatings, producing characteristics suitable for use in a wide range of conditions.

## Features

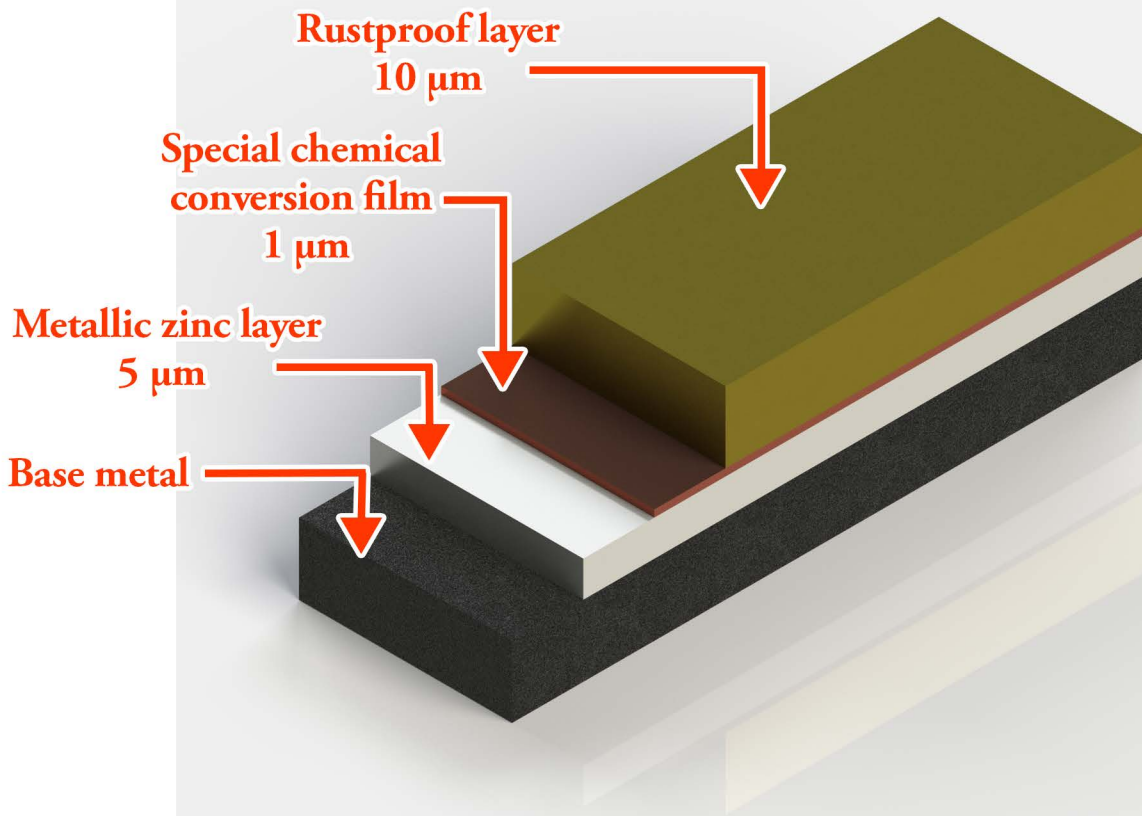
- 1 Superior Corrosion Resistance**  
Combined with zinc plating film such as ZP, YZP, HDG, **FastCoat** significantly improves anti-corrosion performance.
- 2 Scratch Resistance**  
Combined films produce strong and scratch resistant protection.
- 3 Color Variations**  
The basic color is silver, others colors are available upon request.
- 4 Low Processing Temperature**  
Processing temperature is below 200°C, so physical properties of metal are not affected.
- 5 Electrolytic Corrosion Resistance**  
Dramatically reduce chance of electrolytic corrosion between fasteners and aluminum/plated steel board.



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# Coating Film Structure



metallic  
zinc  
▼  
special  
chemical  
conversion  
film  
▼  
1st coating  
▼  
baking  
▼  
2nd coating  
▼  
baking

**FastCoat Treatment**

hot-dip  
galvanizing

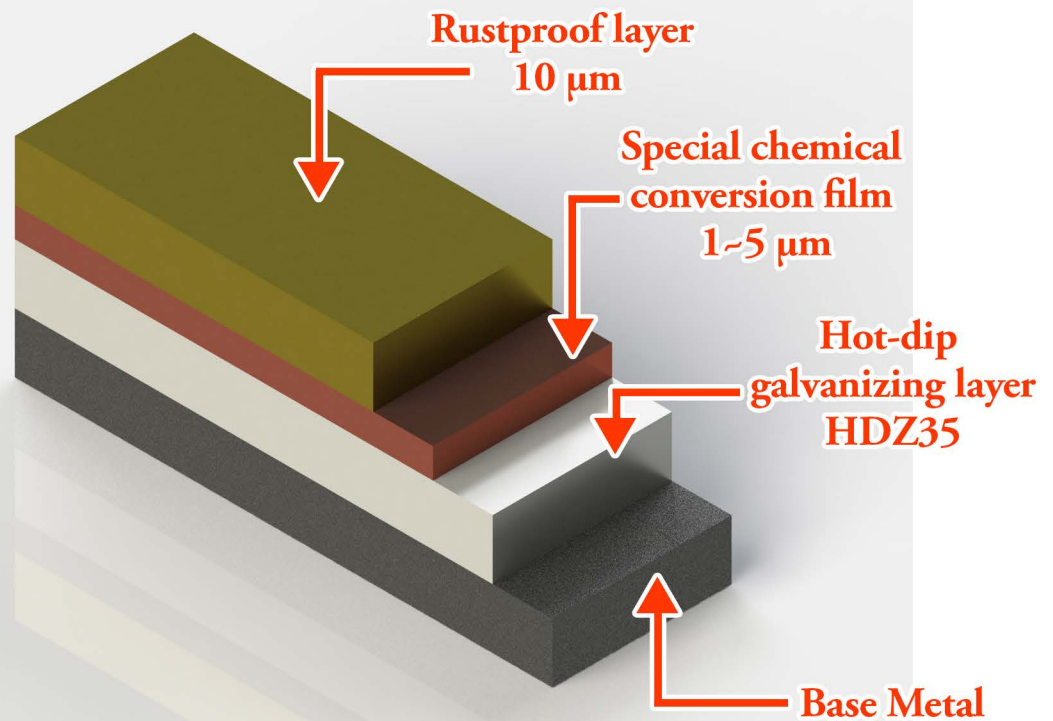
▼  
special  
chemical  
conversion  
film

▼  
1st coating

▼  
baking

▼  
2nd coating

▼  
baking



**FastCoat Treatment on Hot-Dip Galvanizing**



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# Coating Performance



No red rust occurred



Red rust occurred

## Salt Spray Test

1. FastCoat



2. Electroplating hexavalent passivation



3. Electroplating trivalent passivation



0 500 1000 hour

## JIS Z 2371

Continuously spraying with 5% salt water.

## Combined Cycle Test

1. FastCoat



2. Electroplating hexavalent passivation



3. Electroplating trivalent passivation



0 10 20 30 40 50 cycle

## JASO M609-91

One cycle contains 3 phases:

1. Salt spraying (35°C 5%) 2 hours
2. Drying (60°C 20~30%RH) 4 hours
3. Humidity exposure (50°C above 95% RH) 2 hours

## Sulfur Dioxide Gas Corrosion Test

Hot-dip galvanizing + FastCoat



Hot-dip galvanizing



0 5 10 15 cycle

## DIN 50018 (SO<sub>2</sub> 0.2 l)

One cycle contains 2 phases:

1. Humidity 100% (heat: 40°C±3°C) 8 hours
2. Humidity 75% (cooling 18°C~28°C) 16 hours

1. FastCoat

\* metallic zinc layer: electroplating 5µm/HDZ35

\* special chemical conversion film: electroplating 1µm/HDG 1µm

\* rustproof layer 10µm

2. Electroplating hexavalent passivation

\* film 5µm

3. Electroplating trivalent passivation

\* film 5µm

sample  
tested

Bolt  
M8 X 20

finish



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