



TONGCHAI
ELECTRODEPOSITION CO.,LTD

The Best Coating EDP Service



Company Profile

Address: 426 Moo.6 Soi Prekkasa 13, Puttaraksa Road, Prekkasa, Muangsamutprakarn, Samutprakarn 10280

Date of establishment: March, 2012

Capital: 5,000,000 Baht

Area: Approx 2,400 m2

Employee: More than 40 person

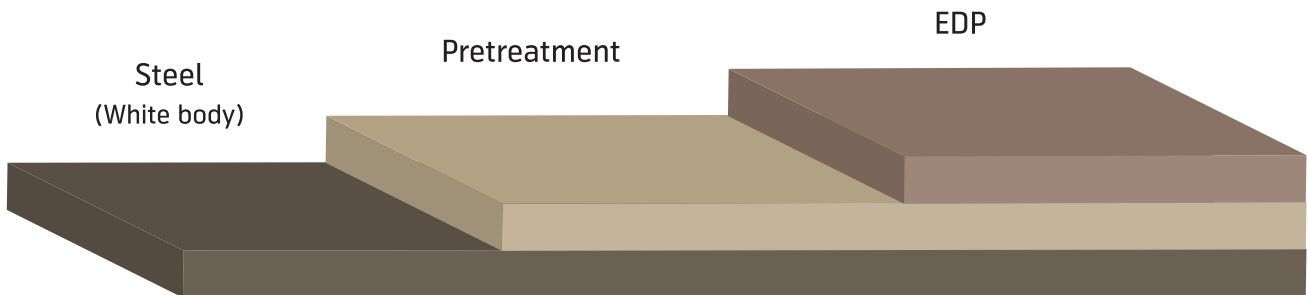
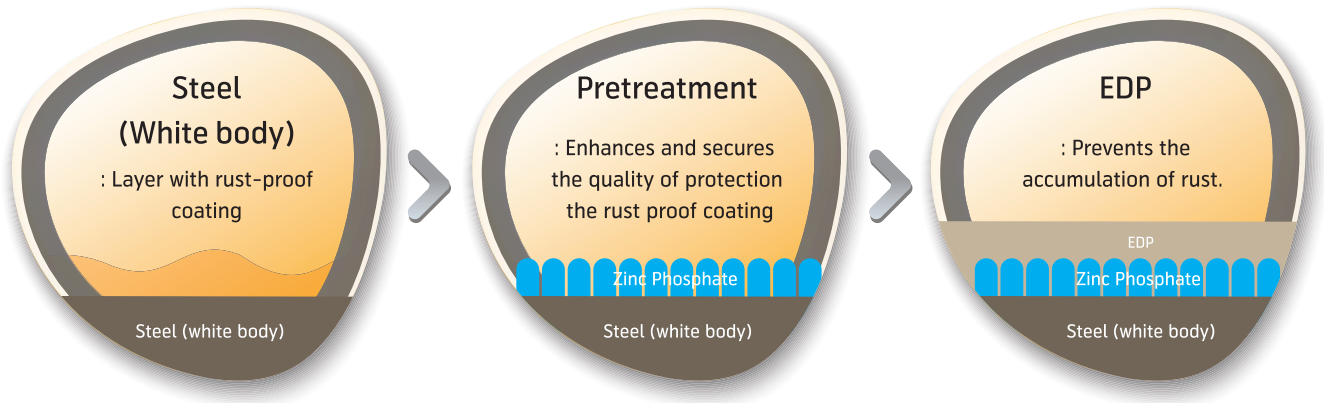


Substance of environmental concerns: SOC free





Process of Coating EDP



Coating refers to the covering that is applied to the surface of an object so that it enhances the appearance and protects the surface from rusting or deteriorating.

Objective of coating

1. Prevents deterioration
2. Enhance the appearance of the part
3. Other purposes include heat prevention,

Pretreatment refers to the process of preparing the surface of the part for the next stage of coating phosphate and chromating.

Objective: To remove oils, metal residue, and debris or dust from the surface of each part, to enhance the appearance and quality of the color coating as well as prevent it from deterioration under harsh weather conditions.

At Tongchai Electrodeposition Co., Ltd., performs every procedure according to industry standards with concise work instructions to monitor each process as well as document and record each stage of production to be able to prevent or minimize any errors. Our quality staff work professionally to meet industry standards in all processes.

In addition to our standard equipment, we have a laboratory in which we run tests on each process of pretreatment or EDP, to ensure that we produce quality work with the latest technology and equipment.





Tongchai Electrodeposition Process Chart

Check Material



Preparation
Production



Hanger Part

Pretreatment
Process

Hot Water
Spray

Degreasing 1
Spray

Degreasing 2
Dip

Water Rinse 1
Spray

Water Rinse 2
Dip

Fresh DI Water
Spray

Water Rinse 4
Dip

Water Rinse 3
Spray

Phosphate
Dip

Surface
Conditional
Spray

Air Blow

ED
Process

ED bath
Dip

UF 1
Spray

UF 2
Spray

UF 3
Spray

DI Water Rinse
Spray

Air Blow

Baking Oven

Machine capacity

| | |
|------------------|-----------------|
| Dimension Part | 1.50m. x 1.80m. |
| Chain | 255 m. |
| Weight | 40kg./hanger |
| Speed time | 2m./1min |
| Cycle time | 2.5 hours |
| Number of hanger | 320 hangers |



Delivery



Packing



Final Inspection

Our water system produces soft water, both RO and DI. We reserve up to 100 tons of water to support the production and increase the efficiency of our pretreatment system.

We use our salt spray testing equipment to check the quality of our products. To ensure that our equipment meets industry standards, it is calibrated every year to ensure accuracy when testing.

Tongchai current 10 tanks of pretreatment and 5 tanks of EDP system. Before running production, system analyses are performed on all tanks.

In order to maintain the highest quality EDP coating, our EDP room utilizes a closed filtration system, which is frequently cleaned to ensure the superior performance

Our laboratory is responsible for measuring and observing our pretreatment system and EDP system. Tests are performed in order to analyze the replenishment of chemicals needed to maintain and improve our standard quality work





| TEST ITEM | TEST METHOD | SPECIFICATION |
|---------------------------|---|---|
| Apperance | Visual Method | Free form unevenness, seeding, pinhole, and others coating film deflective |
| Salt spray Test (x-cut) | 960 Hrs 5% NaCL Temp. 35 °C | < 4 mm. wide one side from cross cut scratch |
| Water resistance | 1. Immerse in water 40 °C for 240 Hrs 2. Check test adhesion (1 mm. wide grid cutting) | Free from blister, peeling rust and adhesive 100/100 |
| Humidity resistance | 1. 50 °C humidity 95% min for 240 Hrs 2. Check test adhesion (1 mm. grid cutting) | Free from blister, peeling rust and adhesive 100/100 |
| Gasoline Resistance | Exposure to unlead gasoline at 20 °C for 7 Hrs | Free from wrinkle, crack blister and peeling |
| Oil resistance | Exposure ti ultra U oil (10W-30) at 100 °C for 7 Hrs | Free from wrinkle, crack blister and peeling |
| Adhesive property | Check test adhesion (1 mm. wide grid cutting) | 100 /100 |
| Alkali Resistance | Dipping to 0.1 N NaOH at room temp. 7 Hrs | Free from blister, peeling rust and adhesive |
| Acid resistance | Dipping to 0.1 N H ₂ SO ₄ at room temp. 7 Hrs | Free from blister, peeling rust and adhesive |
| Hardness | Mitsubishi "UNI" pencil | H min |
| Impact resistance | Dupont impact test at room temp. 500 gram | 50 cm. min free from film crack, peeling |
| Flexing property | Bending along a pipe of a specified diameter 20 mm. at room temp. | Free from blister, peeling rust and adhesive |
| Film thickness | Thickness meter | > 15 Microns |
| Hot salt water resistance | Exposure to 5% NaCL solution 55 °C for 240 Hrs | The width of blister and peeling from the cross scratch shall be within 4 (Max) |



Our experiences



Our experiences
customers





OUR LOCATION



TONG CHAI
ELECTRODEPOSITION CO.,LTD

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