

Riya Zinc Flake Coatings
Zinc flake coating

UNIT PROFILE | ZINC FLAKE COATING | EST. 2023

Riya Zinc Flake Coatings

Advanced zinc flake corrosion protection on two technology platforms: water based GEOPERT® 500 by Zincotec® Korea and solvent based Zintek® systems by MKS' Atotech.

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THE UNIT

Zinc flake coating

Riya Zinc Flake Coatings provides zinc aluminium flake corrosion protection for automotive, fastener and engineering applications. Two proven technology platforms run under one roof: water based GEOPERT® 500 from Zincotec® Co., Ltd. of South Korea on the dip spin line, and solvent based Zintek® technology from MKS' Atotech on the automatic line. That dual capability lets us select the coating system for each job by component geometry, corrosion requirement, coating thickness, friction requirement, appearance and OEM specification, rather than fitting every part to one chemistry.

Water based is the default here: no fire risk, almost no odour, simpler to store and handle, and thinner six to ten micron layers. The solvent based automatic line is kept for parts whose geometry or customer specification asks for it. Tell us the part and the salt spray figure you have to hit, and we will tell you which route suits it.

150 T Tonnes zinc flake coated a month	Two Coating platforms, water and solvent based	Dip spin Application for fasteners in bulk	2023 Established
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COATING SYSTEMS

Two technologies, one technical partner

The coating system is selected for each part rather than applied by habit. The decision runs on the substrate, the corrosion requirement, the torque window and the assembly method.

Water based zinc flake: GEOPERT® 500

High corrosion resistance. Low VOC. Water soluble technology.

- Partner: Zincotec® Co., Ltd., South Korea

Solvent based zinc flake: Zintek® systems

Technology built to exceed industry standards.

- Partner: MKS' Atotech

Selection criteria

- Component geometry
- Corrosion requirement
- Coating thickness
- Friction requirement
- Appearance
- OEM specification
- Production volume
- Application method

More than corrosion protection

- Controlled coefficient of friction
- Consistent torque and tension performance
- Additional corrosion protection
- Chemical resistance
- Improved appearance
- UV stability
- Wear resistance
- Controlled assembly characteristics



PROCESS

The coating line

01 Oil removal

Oil and process residues are removed so the coating has clean steel to key into.

02 Shot blasting

Shot blasting brings the surface to the profile the coating needs.

03 Coating

The selected zinc flake system is applied by dip spin for even coverage on threads.

04 Curing

The parts are cured to the schedule the chemistry requires.

05 Cooling

Cooled and staged for inspection, then packed.



ON THE FLOOR

Quality control points

CONTROL	WHY IT MATTERS
Incoming material control	Substrate, heat treatment state and cleanliness confirmed before the batch is accepted
Surface preparation control	Blast profile and cleanliness set how well the coating keys to the steel
Coating chemistry control	Bath make up held to the manufacturer's data sheet
Viscosity and process parameter control	Viscosity, spin speed and line speed govern film build on the threads
Coating thickness verification	Six to ten microns checked by DFT meter and XRF
Appearance inspection	Coverage, colour and freedom from runs checked on every batch
Salt spray and corrosion testing	Hours to red rust run in house to ASTM B117
Torque and functional testing	Coefficient of friction and torque tension checked on the assembled joint
Final inspection and batch release	Records signed off and held against the batch number

AROUND THE PLANT



Oil removal and shot blasting



Dip spin coating



Automatic line

WORKS

Plot No. 215, HSIIDC, Hissar Road, Rohtak 124001 (Haryana), India

QUALITY

Measured before it ships

- Coating thickness control
- Salt spray testing
- XRF inspection
- Torque and functional testing
- Batch traceability

Zinc flake coatings are applied through a non electrolytic process rather than conventional electroplating, and Atotech specifically describes its zinc flake technology as eliminating the hydrogen embrittlement problem associated with the coating process. That is why the route suits 10.9, 12.9, high strength and critical fasteners. Final suitability is always evaluated against the customer's specification, substrate, heat treatment and the complete coating process.

TESTING AND INSPECTION



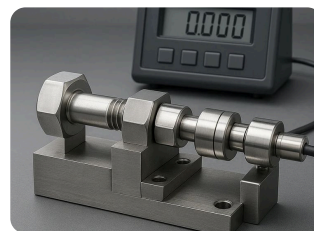
Salt spray chamber · Presto



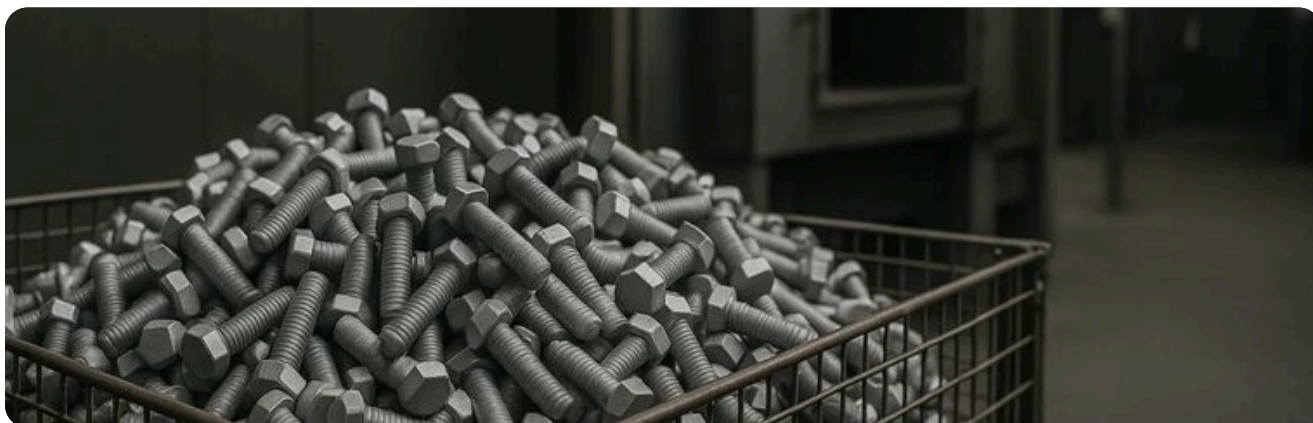
DFT coating thickness meter · Fischer



XRF coating analyser · Fischer



Torque testing · Syscon



CERTIFICATION

ROHS

INDUSTRIES WE SERVE

Engineered for critical components

Automotive

Fasteners · Chassis components · Brackets · Suspension parts · Brake components · Stamping components

Commercial vehicles

Heavy duty fasteners · Chassis parts · Structural components

Agricultural equipment

Tractors · Implements · Structural fasteners

Industrial and engineering

General engineering · Heavy machinery · Construction equipment · Wind energy · Industrial fasteners

CONTACT

Works

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Send with an enquiry

- Part drawing, substrate and heat treatment
- Salt spray hours to meet
- Coating thickness and colour
- Friction or torque window, if specified
- OEM specification, if any
- Quantity and delivery schedule

ZINC FLAKE COATING, ROHTAK

Two coating platforms, chosen part by part, since 2023.

Send the part and the salt spray figure you have to hit, and we will tell you which route suits it. Monday to Saturday, 9:30 to 18:30 IST.