

Tech Talk Q&A

**Follow ASTM D 6386-99 for
duplex system surface prep.**

By Professor Zinc

**Q: "Is any special preparation required
for painting over galvanized steel?"**

A. Known as a duplex system, painting over galvanized steel enhances corrosion protection while allowing paint to be used for color coding or aesthetic reasons. Proper surface preparation is required.



**Follow ASTM D 6386-99
Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting.**

The basic steps before painting are as follows:

1. Talk to the galvanizer too make sure they know your plans and can avoid any treatments that would impede paint adhesion.
2. Determine the condition of the surface: newly galvanized, partially weathered or fully weathered.
3. Clean the surface. Remove bumps, runs and drips and any organic matter. Then rinse and dry.
4. Profile the surface. This final step may include sweep blasting, a wash primer, acrylic pretreatment and/or surface grinding.

Hot Dip News Summer 2019

The final result of a duplex system is worth the effort. The exterior layer of paint or powder coating will slow down the rate at which the zinc is consumed, and once the exterior paint layer has been weathered down or damaged, the zinc beneath is still available to provide cathodic and barrier protection. As a result, the substrate steel is afforded corrosion protection for 1.5 to 2.3 times the sum of the expected life of each system alone.

For example, if a galvanized coating alone would provide 50 years of maintenance-free protection and a paint coating would not require any maintenance for 10 years, the combination duplex system would provide maintenance-free protection for 90 to 138 years in the same environment.

Thanks for the great question! We hope you find the answer useful.

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Galvan Industries, Inc. Hot Dip News

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GALVAN RECEIVES AGA AWARD OF EXCELLENCE FOR IMPERIAL SUGAR EXPANSION

A Galvan Industries galvanizing project, the Imperial Sugar Plant Expansion in Port Wentworth, Ga., is a winner in the American Galvanizers Association's 2019 Excellence in Hot-Dip Galvanizing Awards. The project won recognition in the Food & Agriculture category of the competition.

Imperial Sugar chose hot-dip galvanizing by Galvan Industries, Inc. of Harrisburg, NC, for their specialized tanks, supports, handrails and ladders. Imperial Sugar Company is the largest sugar refining organization in the United States. Due to the low life cycle cost, the galvanized steel produced for this project will continue to save the company money over the decades it is in service.

This year's award is the 10th for Galvan in the AGA Award of Excellence program. Galvan has been recognized for galvanizing excellence in the Food & Agriculture, Industrial, Building & Architecture, Electrical, Utility & Communications, Recreation & Entertainment, and Bridge & Highway categories. Put Galvan's award-winning service to work on your project or product today.





New Hydroelectric Dam Gates Are Protected From Rust By Galvan

Galvan Industries has been chosen to protect the steel used in custom-designed replacement head gates and spillway gates for a hydroelectric dam in Western North Carolina. Made from heavy-duty steel and hot dip galvanized to prevent damage from corrosion, the new gates and supporting structural steel will add years of life and improved performance to the existing dam.

Thanks to its use of naturally occurring zinc metal, 100% recyclability, speed of application, delivery to the job site, aesthetic durability, and decades of service life without maintenance, hot-dip galvanized steel from Galvan Industries delivers unparalleled performance over other corrosion protection methods for energy producers.

Utilizing hot-dip galvanized steel in biofuel, wind, hydroelectric, and solar structures not only protects them from the effects of corrosion, but also is highly sustainable and earth-friendly.



EMPLOYEE SPOTLIGHT:

Jesus Magdaleno Madrigal: Long-Time Galvan Employee, New US Citizen



J. Jesus Magdaleno Madrigal first joined Galvan in 1997 as a blast machine operator. Except for one four-year break, he's been a Galvan employee ever since. In 2011, he became Galvan's electrical product maintenance technician for ground rods.

Jesus recently earned another title that he is very proud of: American citizen.

It's been a long journey. Born in Purepero, Michoacan in Mexico, Jesus came to America with his father when he was just 15. They traveled together to Huntington Beach, California for work in 1988.

It was there where he met his wife Patricia. Jesus moved to North Carolina in 1997 for better job opportunities. He found work in factories in Concord, NC, before coming to Galvan later that year.

When Jesus started work at Galvan, his wife moved to North Carolina to be with him. They live in Concord in a home that Jesus completely rebuilt himself while working full time at Galvan. They have two daughters – Citlally, 18 years old and Yaretzi, 9 years old, shown above with her father at his citizenship ceremony.

Jesus is now attending classes at Rowan Cabarrus Community College to complete his high school education. After that his plans are to take mechanical and electrical classes through the college.

Jesus obviously has a tremendous work ethic and a determination to achieve what he sets out to do no matter how difficult the challenge. We at Galvan are fortunate to have him as part of our team and happy to greet him as a fellow American.



PRODUCT FOCUS:

Loading Dock Inclusions

Steel frames like these that protect the edges of loading dock entrances get a lot of exposure to the elements and loads of rough treatment. Hot dip galvanizing by Galvan Industries, Inc. protects the steel and the concrete around it from damage caused by rust. Find out how Galvan can protect the steel in your product.