

Tech Talk Q&A

When it comes to rust prevention, nothing is greener than galvanizing

By Professor Zinc

Q: "What is the environmental impact of hot dip galvanizing?"

A. The hot-dip galvanizing process for protecting steel from corrosion is intrinsically "green." The metals involved are among the most recycled materials on earth – steel and zinc. The minimum recycled content for most steel used in the U.S. is about 25%. More than one-third of the zinc consumed in North America is recycled.

Both metals are safe natural, environmentally friendly elements. In fact, iron and zinc are nutrients present in the foods we eat and essential to good health. Both are completely recyclable after the galvanizing process. That's just part of the story.

A recent study in Europe found that the long service life and freedom from maintenance for which galvanizing is known is an environmental advantage over paint. Galvanizing protects steel from rust for 60 years or more. To achieve the same 60-year protection with paint requires the use of a thick, three-coat paint system plus on-site maintenance, including cleaning, partial repainting every 15 years and at least one complete repainting. All this adds to the cost and the negative environmental impact of paint.

Hot Dip News Spring 2017

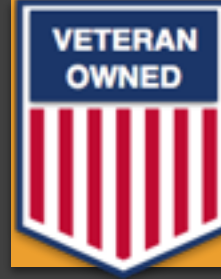
In addition, the study compared hot-dip galvanized steel surfaces to painted steel surfaces in five sustainability categories: consumption of resources, greenhouse effect, photo-oxidant formation, acidification and eutrophication (promotion of algae growth that depletes oxygen in water).

In every category, galvanizing proved more environmentally sound than painting. Painting not only requires twice the resources of hot-dip galvanizing, it produces a greenhouse effect that is more than double that of galvanizing.

Hot-dip galvanizing is a safe, environmentally and economically sound way to extend the life of steel. Thanks for your question.

**Do you have a question for the Professor?
Submit it online at www.galvan-ize.com/mrzinc.asp.**

Contact Galvan Industries, Inc.
www.galvan-ize.com
Toll Free: 1.800.277.5678
Fax: 704.455.5215
E-mail: sales@galvan-ize.com



Galvan Industries, Inc. Hot Dip News

Inside:

- *The Importance of Galvanized Rebar*
- *Meet Harshad Londhe*
- *New Directions For Pick Up And Receiving*
- *The Greenest Corrosion Protection*



GALVAN PROTECTS NEW VIRGINIA POWER PLANT FOR A LIFETIME

Galvan Industries has been chosen to provide hot dip galvanizing for the new 1,588-megawatt Greenville County Power Station, which is located on a 1,143-acre site in southern Virginia. Fluor Corporation is the engineering, procurement, construction and commissioning (EPCC) contractor for Dominion Virginia Power, the owner of plant.

Galvan is providing corrosion protection for approximately 2,500 tons of structural steel including pipe bridge and an inlet filtration structure. Galvanizing will protect the steel against rust without maintenance for the full 36-year expected life of the plant. In addition to galvanizing, **Galvan is also providing transportation services, delivering as many as six truckloads a day directly to the job site.**

Find out how Galvan can deliver a lifetime of corrosion protection to your next large project. Contact Ben Kelly at Galvan Industries today.

(Photo Credit: New York State Thruway Authority)



A BRIDGE TO THE NEXT CENTURY

Galvanized rebar is critical to extending the life of reinforced concrete infrastructure. More jurisdictions are demanding it to make the most of their tax dollars.

- The **New York State** Thruway Authority has recently begun to specify galvanized reinforcement for all of its bridge decks, including the massive Tappan Zee bridge across the Hudson River. A design lifetime requirement of 100 years led engineers to specify galvanized reinforcing bar throughout the project.
- The **Pennsylvania** Department of Transportation has specified galvanized reinforcement for decades with excellent results.
- Galvanized reinforcement was used for **Florida's** Boca Chica bridge, a vital transportation link from the mainland to the Florida Keys.
- Reinforcing steel and bridge cables were hot-dip galvanized for Greenville, **S.C.** iconic Liberty Bridge specifically to extend its beauty and maintenance-free service life.

Why is galvanized rebar so important?

Superior Corrosion Protection

Unlike painting and epoxy which are solely barrier-type coatings, galvanizing provides both barrier and sacrificial protection to the underlying steel.

Exceptional Life Cycle Cost

When the costs and consequences of corrosion damage to a reinforced concrete structure are analyzed, the extra cost of galvanizing is a very small investment in long-term corrosion protection.

Beauty that Lasts

Galvanized reinforcement ensures a clean appearance of finished concrete by preventing cracking and rust staining, providing lasting beauty for iconic public works like the National Theatre in London and the Sydney Opera House.

Visit www.galvanizedrebar.com for more information, including the brochure shown above.

EMPLOYEE SPOTLIGHT:

HARSHAD LONDHE, PLANT MANAGER



Harshad Londhe, the plant manager for Galvan Industries, has led the company's hot dip galvanizing and electrical products manufacturing efforts since 2009.

A mechanical engineer by education, Harshad brings a diverse work history to the job, with experience in the bearing, semiconductor capital equipment, and fence industries, including project management, budgeting, inventory management, continuous improvement, team building, and employee development. He is a Six Sigma Green Belt and an expert in Lean Manufacturing.

At Galvan, Harshad manages all manufacturing operations, from zinc galvanizing for steel fabrications to the production of ground rods for the electrical products group. This means ensuring that manufacturing equipment is upgraded and maintained with sound engineering principles and that safety, environmental, and employee relations goals and directives are met.

Harshad began working as a manufacturing engineer directly out of college at Clemson University and advanced to role of plant manager in just seven years. In addition to his strong mechanical aptitude, he is recognized as a team-oriented leader and "coach". Members of Galvan's manufacturing team say Harshad allows them to work out solutions to problems while coaching them in the process to a successful resolution. The result is superior customer satisfaction and service that is a competitive advantage for Galvan.

"Harshad makes sure everyone understands the customer's requirements and can meet those requirements," says company president Laurens Willard. "Our focus is always on the customer at Galvan. Harshad's broad range of experience and capabilities make him a major asset for our customers. He's promoting quality control and productivity throughout the company every day."

Away from work, Harshad enjoys golf, football (Clemson Tigers and Pittsburgh Steelers) and spending time with his family.

Simplified Traffic Pattern For Pick-up And Delivery



Turn In Here!

Now, whether dropping off an order to be galvanized or picking up an order that has been completed, all trucks use the same entrance.

Turn in at the "Receiving" sign at 12000 University City Blvd. This will be a one-way route with separate lanes for pick-ups and deliveries, eliminating congestion and tight turnarounds and making everyone's life a little easier. Hooray!

