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Promoting Use and Advancing Quality of Epoxy-Coated Reinforcing Steel.

## Visit Our Newly Designed Website...

[www.epoxyinterestgroup.org](http://www.epoxyinterestgroup.org)

## Welcome

Forty years ago,

- Richard Nixon was inaugurated for his second term
- Pink Floyd's The Dark Side of the Moon was released in the U.S.
- The last United States soldier left Vietnam
- The Sears Tower in Chicago was finished, becoming the world's tallest building at 1,451 feet
- Lite Beer was introduced in the U.S. by the Miller Brewing Company
- Epoxy-coated reinforcing steel was first used



In 2013, epoxy-coated reinforcing steel is celebrating its 40th anniversary and it remains the most commonly specified reinforcing steel to protect concrete against corrosion damage. While some may consider a 40-year-old product "middle aged," changes in

specification improvements in this product have resulted in a more robust and higher performing product. For this reason, the most recent ASTM specifications for these products should be used.

- ASTM A775 / A775M - 07b Standard Specification for Epoxy-Coated Steel Reinforcing Bars
- ASTM A934 / A934M - 07 Standard Specification for Epoxy-Coated Prefabricated Steel Reinforcing Bars
- ASTM A884 / A884M - 12 Standard Specification for Epoxy-Coated Steel Wire and Welded Wire Reinforcement
- ASTM D3963 / D3963M - 01(2007) Standard Specification for Fabrication and Jobsite Handling of Epoxy-Coated Steel Reinforcing Bars

Epoxy-coated steel has several advantages over other products, including:

- It uses locally available reinforcing steel
- It provides cost-effective corrosion protection
- It is available throughout North America and other countries
- Its performance is supported by 40 years of field and laboratory research
- It is made using low energy manufacturing methods
- It is readily fabricated
- It performs well in fires
- It is the only corrosion-resistant steel covered by a CRSI Plant Certification Program

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*"One thing I am convinced more and more is true and that is this: The only way to be truly happy is to make others happy. When you realize that and take advantage of the fact, everything is made perfect."*

— William Carlos Williams

## Projects Using Epoxy-Coated Reinforcing Steel Wanted

EIG wants to feature your project in upcoming editions of Anti-Corrosion Times and our Project Gallery. All project types are welcome. Please send basic information on the project and information on how to access photography (construction and/or finished, all photo credits) to [info@epoxy.crsi.org](mailto:info@epoxy.crsi.org).

## Projects



### Portland-Milwaukie Light Rail Bridge (Caruthers Bridge)

Portland, OR

Epoxy-coated reinforcing steel is being used in the Portland-Milwaukie Light Rail Transit Project that will connect Portland State University in downtown Portland, inner Southeast Portland, Milwaukie and north Clackamas County. This bridge will be the first span built over the river since the addition of the Fremont Bridge in 1973 and it is designed to carry light rail trains, buses, cyclists and pedestrians and, in the future, streetcars.

**MORE**

### Davis Slough Bridge, SR 532

Stanwood and Camano Island, WA

The original Davis Slough highway and bridge was built in the 1950s and spans the mouth of the Stillaguamish River and a railroad spur line. It is the only bridge to Camano Island. The replacement 400-ft long 3-span bridge meets current earthquake standards, requires less maintenance, and provides wide shoulders to accommodate disabled vehicles and emergency responders.

**MORE**



### NYSDOT I-86/Route 15 Interchange

Erwin, Steuben County, NY

In 2008, the New York State Department of Transportation (NYSDOT) completed a project to upgrade the Interstate 86/U.S. Route 15 interchange in the town of Erwin, Steuben County. This project is situated at the confluence of the Tioga and Cohocton Rivers and had to be built around a number of geographical constraints, including the river crossing and an active railroad.

**MORE**

## New Publication from the Epoxy Interest Group

The following document may be downloaded from [www.epoxyinterestgroup.org](http://www.epoxyinterestgroup.org) or if you wish hard copies, please contact us at

facebook

[info@epoxyinterestgroup.org](mailto:info@epoxyinterestgroup.org).



### Comparing The Performance Of Epoxy-Coated And Galvanized Reinforcing Steel. A Literature Review

EIG has recently produced a report evaluating the laboratory and field research comparing the performance of epoxy-coated and galvanized reinforcing steel. This 6-page report shows why epoxy-coated bars have become the most commonly specified reinforcing steel bars to protect against chloride-induced corrosion. Epoxy-coated reinforcing steel has been used in over 67 times more bridges covering over 90 times more area than galvanized reinforcing steel. The report also

shows that galvanized decks constructed between 1974 and 1984 are 2-1/2 times more likely to show poor performance compared with decks containing epoxy-coated bars. This publication may be downloaded for free at <http://www.epoxyinterestgroup.org/index.cfm/publications/index>.

## Epoxy Interest Group now on Facebook

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## Questions from the Field

**Question:** Why are most epoxy-coated reinforcing bars green?

**Answer:** Early in the history of epoxy-coated reinforcing steel, brown colored epoxy was used for reinforcing bars as this epoxy had been taken directly from the pipeline industry. Unfortunately, if the coating on the bars became damaged it was difficult to detect locations that required patching. Thus, in the 1980s the use of green colored epoxy was essentially universally adopted in North America for bars that may be fabricated after coating, meeting the ASTM A775 specification.

In the 1990s, a new specification for pre-fabricated epoxy-coated reinforcing bars was introduced. The coatings for this new product meeting ASTM A934 are typically purple or grey in color.

The color of the coatings is not found in the ASTM specifications; however, some agency specifications do contain required colors. Other countries have adopted other colored coatings. For example, in Japan, bars are commonly coated with a blue epoxy. It is generally recognized that the color of the bar does not change the performance of the coating.