

PRODUCT INNOVATION

THE X-CONCEPT AND GALVASHIELD® X-SERIES LAUNCH

Over the past 20 years, Vector Corrosion Technologies has learned a great deal about how galvanic anodes perform, age and protect steel in reinforced concrete. The factors that influence galvanic anode performance and service life are the surface-to-mass ratio of the zinc core, the zinc core activation method (alkali vs. halide) and the environmental exposure condition, including the level of chloride contamination, moisture and temperature. With these factors in mind, Vector has developed a brand-new line of type 1A embedded galvanic anodes, which have been specifically designed to achieve a minimum 20-year anode service life in extreme environments. Every 10-15°C (18 to 27°F) increase in temperature causes a natural increase in the current delivered by a galvanic anode which will reduce the anode service life. By following a performance-based specification, our Galvashield® XPX and Galvashield® CCX anodes strike the right balance of anode service area and zinc mass in environments with average annual temperatures greater than 15°C (60°F).

To learn more about the X-Concept and Galvashield® X-Series, go to Vector-Corrosion.com/xseries



VECTOR RELEASES PERFORMANCE-BASED SPECIFICATIONS FOR GALVASHIELD® XP AND CC LINES

Currently, many existing specifications have become prescriptive by focusing on zinc mass as the only qualifier for product acceptance in galvanic-based cathodic protection systems.

Our paper, featured in AAMP's Materials Performance magazine, references years of anode performance data which shows there are many factors that affect the performance of embedded galvanic anodes, including anode design, chemistry, porosity, connection details, environment, and activator. With this knowledge, we need a more accurate specification to ensure these products are capable of

protecting the structure for the desired service life.

Our open-sourced performance-based specifications ensure that the products installed in your structure will meet or exceed the level of protection required to meet the desired service life by using stipulations such as a minimum current density based on corrosion risk, the required design service life and field performance data to support the design.

These specifications are available for free in .docx format on our Galvashield® XP, and Galvashield® CC product pages at Vector-Corrosion.com/xp and Vector-Corrosion.com/cc

MASTER BUILDERS SOLUTIONS LAUNCHES MASTEREMACO ONEMIX CONCRETE REPAIR SYSTEM

Master Builders Solutions introduces a customizable, environmentally friendly concrete repair system designed to increase versatility, efficiency and ease of use on jobsites — without separate, dedicated products that serve each need.

The first of its kind in the industry, MasterEmaco® OneMix™ Concrete Repair System consists of one universal bag of base material that can be used in horizontal, vertical and overhead applications by adjusting the water demand. Additionally, combining the base material with six specialized Power Paks™, creates 120 different products.



Using the MasterEmaco OneMix system is simple and intuitive. Additional benefits include:

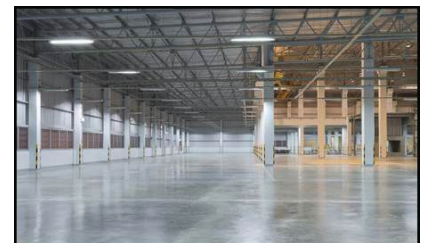
- Superior performance – MasterEmaco OneMix Concrete Repair System provides increased durability compared to competitor products.
- Greater flexibility – contractors can quickly and easily create a repair material suitable for many different applications, on the spot.

- Quality Assurance – each Power Pak has a unique visible tracer that is easily identifiable, even post application to ensure an appropriate installation.
- Reduced storage and jobsite complexity – rather than storing multiple repair materials, contractors can use the same universal base material for many job types.
- Better for the environment – the small Power Pak size reduces waste. Additionally, because the Power Paks are smaller and customizable, contractors only use what they need – nothing more, nothing less.

MasterEmaco OneMix Concrete Repair System is available in the US and Canada. For more information, visit www.master-builders-solutions.com/en-us.

VALUE ENGINEERING WITH MCI®-2019 FOR CONCRETE MAINTENANCE AND REPAIR

The concept of value engineering is not only for the construction phase. It is also a useful practice during the maintenance and repair stages of existing reinforced concrete structures, ensuring projects get done within budget. True value engineering saves money without reducing service life or affecting the quality of construction or materials. Ideally, it adds value to the project. MCI®-2019 is one such value engineering solution to take advantage of when seeking to extend the service life of existing concrete structures.



MCI®-2019 is a 40% silane, solvent-based concrete water repellent containing Migrating Corrosion Inhibitors. The small molecules of MCI®-2019 can easily penetrate into concrete, providing water repellency by chemically reacting with cementitious substrates under proper application. MCI®-2019 seals surface pores, which prevents intrusion of chloride and carbonation and protects from the ingress of wind driven rain. Treated areas retain their original appearance and are breathable. MCI®-2019 is an excellent

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option both as the finishing touch on a concrete repair (where no membrane or coating system is used) and for periodic maintenance every 7-10 years. Since MCI®-2019 increases service life, it can ultimately reduce the use of repair or reconstruction materials, thus contributing to sustainability.

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For more information visit <https://www.cortecmci.com/contact-us/>.

ANTICORROSION COATINGS FOR METAL: ONE SIZE DOES NOT FIT ALL

The metal coatings industry is dominated by large corporations that provide a wide selection of outstanding paints but may be too rigid to cater to special application needs. Every coating application has specific parameters, but often, if the coating does not work properly straight out of the drum, the end user is out of luck. The story is different at Cortec®, where a flexible customer service mindset helps users adapt the right coating to individualized needs.

When a customer comes to Cortec® looking for a new corrosion inhibiting paint, Cortec® will first help them narrow down the best option available from Cortec's existing portfolio. Some of the parameters Cortec® examines alongside customers are as follows:

- Coating carrier (water-based vs. solvent-based)
- VOCs
- Coating thickness
- Outdoor vs. indoor use
- Salt spray performance



Based on the information provided, Cortec's representatives and technical staff can then recommend one or two coatings that seem best suited to the job. Sometimes, no modification is needed at all. Other times, a trial run may reveal that slight customization is due.

Reasons for coating customization fall into two categories: performance and application needs. The former includes factors such as adhesion and salt spray requirements, which may be higher or lower than the specific coating in the lineup. Cortec® can work with customers to adjust these parameters in special situations. On the other side of the coin, the customer's application process can be a huge gamechanger—not because of something wrong with the coating but because different application methods affect the same coating differently. For example, the use of an airless sprayer versus the dip coating process means

viscosity may need to be adjusted to make the coating flow more smoothly through the sprayer. Some application methods create extra foaming and therefore require foam control. In other situations, the manufacturer may need a longer or a shorter drying time. There are countless other considerations, as well, that may require small or large adjustments to the base coating. Cortec® works to stay flexible and adapt to the customers' needs, which sometimes leads to new discoveries that can benefit others in the process.

Contact Cortec® to get started in the process of finding an anticorrosion coating suited to your needs: <https://www.corteccoatings.com/contact-us-2/>

INTERESTED IN SEEING YOUR NEW PRODUCT IN THIS COLUMN?

Email your 150-200 word news to editor@icri.org. Content for the March/April 2023 issue is due by February 1, 2023, and content for the May/June 2023 issue is due by April 1, 2023. One (1) high resolution product photo may be included. ICRI reserves the right to edit all submissions.



For the best in product manufacturers and industry professionals, visit www.icri.org.

The International Concrete Repair Institute is the leading resource for education and information to improve the quality of repair, restoration, and protection of concrete.

Visit www.icri.org.