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Attention: Editor
April 11, 2018
PRESS RELEASE







Cortec® Receives CE Approval for Migratory Corrosion Inhibitors (MCI®) Products for the European Market!

Cortec's Patented MCI® technology aimed to protect reinforcing metal in concrete from corrosion is widely used around the globe. Application of MCI® products experienced rapid growth in recent years due to number of factors such as proven efficiency and environmental safety. By using this technology, corrosion initiation is delayed and the lifecycle of structures is significantly extended. Designers and contractors globally are using MCI® technology in the most demanding projects.





Italian construction company Rizzani de Eccher with its partners is erecting the new Frederikssund bridge in Denmark. The aim is to replace the old bridge built in 1935 by providing an alternative to the only currently active bridge over the fjord. The project includes design & construction of an 8-km-long dual-carriageway highway, comprehensive of a bridge over the Roskilde Fjord. MCI® is used for corrosion protection of PT concrete segments.

Cortec's MCI® products conform to EN 1504, the new EU Standard for the protection and repair of reinforced concrete. The aim of the new European norm EN 1504 is to standardize all aspects of the repair process and provide an improved framework for achieving successful, durable repairs and satisfied clients.

Ivana Liposcak, Cortec's MCI Technical Sales Manager states "In Europe over 50% of the annual European construction budget is spent on the repair and refurbishment of existing structures and proper maintenance of these structures and the correct repair of deteriorating reinforced concrete should be a vital part of any refurbishment strategy". According to Liposcak: "The implementation of EN 1504 will improve the performance of concrete repairs taking into account whole life costs and durability".



MCI[®] inhibitors are currently used in numerus on-going projects throughout Europe. One of them is construction of Viaduct Tagliamento in Italy.



CorrVerter MCI® was applied recently during preservation of Croatian, war-destructed water tower monument.

By receiving CE certificate MCI® products are now accepted for use throughout Europe. The CE certificate is mandatory for most construction products sold on the European market. CE marking confirms that the product has been assessed and meets safety, health and environmental protection requirements.

The added value of CE certificate is that all EU countries must enable and encourage the sale of construction products with the CE marking. This means that no additional certificates or further testing cannot be requested by public entities and products can be placed on the whole EU market with the same documentation.

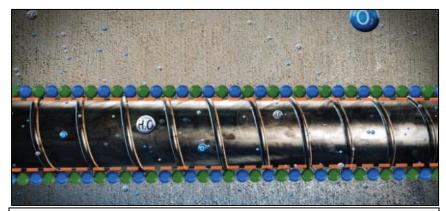
With CE mark, Cortec® as a manufacturer guarantees that the product is produced in accordance with European technical specifications. With CE marking Cortec® is able to provide Declaration of Performance (DOP) which is of key importance for Construction Products Regulation as it provides information on product's performance.

CE approved products:

- ✓ MCI® 2018 is a 100% silane concrete sealer containing MCI Inhibitors. It penetrates deep into concrete providing corrosion protection to reinforcing steel from existing water and chloride ions, or other contaminants. Provides water repellency
- ✓ MCI® 2019 is a 40% silane, solvent-based concrete sealer containing MCI® inhibitors. Its small molecule product that can easily penetrate into concrete, providing water repellency by chemically reacting with cementitious substrates under proper application.
- ✓ MCI® 2021 Concrete sealer that combines a blend of reactive silicates, surface-active agents, and Migratory Corrosion Inhibitors. MCI-2021 preserves and protects concrete by working with the chemistry of concrete.
- ✓ **CorrVerter®** fast drying, water-based one coat system (primer) that converts rusted surfaces to a hydrophobic passive layer and prevents further rusting thru the unique formulation of chelating agents and PVC resins. It provides long term corrosion protection by itself or by top-coating for extended performance
- ✓ MCI® Wall Defense clear, silicone elastomer-based anti-graffiti coating that can be applied to exterior concrete, masonry, and metal surfaces. It is designed to be used over various types of masonry that are both coated and uncoated.
- ✓ MCI® Architectural Coating a unique, water-based primer/topcoat designed to provide protection in harsh, outdoor applications. Provides three main benefits: acts as a sealer, improves the appearance of buildings and structural elements and provides a source of corrosion inhibitors when applied directly to reinforcement and or metal.

Environmentally safe way to prevent corrosion of reinforced metal in concrete in aggressive environments

The environmental issue related to toxicity and carcinogenic inhibitors, such as calcium nitrite has led to several studies reviewing the use of current inhibitors and developing natural inhibitors that do not harm the properties of concrete while being ecofriendly. MCI® are organic amine-based chemicals and are considered one of the simplest and most cost-effective methods to control the corrosion in existing reinforced concrete structures. They are available in many different forms for all type of construction —



Migrating corrosion inhibitors form a protective layer on the surface of embedded steel reinforcement.

admixtures for new concrete, repair mortars and grouts; topical treatments, injectable products, and many specialty formats.

Cortec's green Migratory Corrosion Inhibitors are natural organic compounds obtained from biobased materials. The latest generation is based on amine carboxylates technology which includes fermentation products of sugar beets - a renewable resource. Migration corrosion inhibitors have become available with the advantage that, as well as being capable of application as admixtures, they may be applied as remedial agents to the surface



of the concrete. These organic, amine-based chemicals possess appreciable vapor pressure under atmospheric conditions, thus allowing vapor transport of the inhibitive substance.

MCI® technology is already widley used in the Middle East region due it its harsh weather conditions such as high temperatures, salt and humidity. Engineers in this region must take into account consequences that aggressive atmospheric conditions have on new structures. Since their goal is to achieve a longer service life, they are extensively using MCI® technology.



Image 1. MCI® powder was injected into post tensioned ducts just after placement of post tension cables. This decreased time and expense needed for corrosion protection of the orbital high way. Image 2. Especially significant example of using MCI® and design life modeling to extend service life is the Burj Khalifa tower.

Cortec® Corporation is the global leader in innovative, environmentally responsible VpCI® and MCI® corrosion control technologies for Packaging, Metalworking, Construction, Electronics, Water Treatment, Oil & Gas, and other industries. Our relentless dedication to sustainability, quality, service, and support is unmatched in the industry. Headquartered in St. Paul, Minnesota, Cortec® manufactures over 400 products distributed worldwide. ISO 9001, ISO 14001:2004, & ISO 17025 Certified. Cortec Website: http://www.cortecvci.com Phone: 1-800-426-7832 FAX: (651) 429-1122