

Editorial Contact:  
Cortec® Advertising Agency

Julie Holmquist  
(651) 429-1100 Ext. 1194

[jholmquist@cortecvci.com](mailto:jholmquist@cortecvci.com)

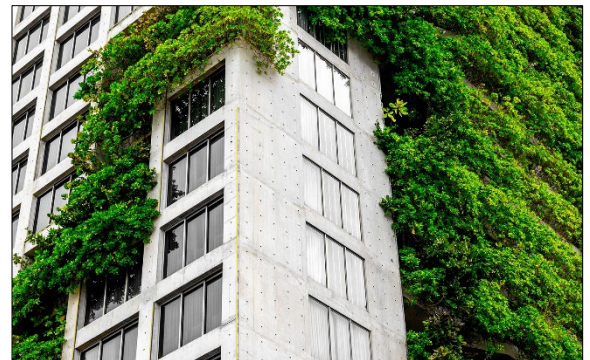


**Attention: Editor**  
**April 20, 2026**  
**PRESS RELEASE**



## **Durability vs. Carbon Reduction: Corrosion Challenges in Green Concrete**

As society rushes to cut carbon emissions wherever possible, [Cortec®](#) is addressing an important question on the mind of many concrete industry professionals. Is “green” concrete truly sustainable if durability is lacking? More importantly, what can be done about it? Migrating Corrosion Inhibitor™ ([MCI®](#)) technology offers an important key to the solution by addressing concerns on the corrosion side of the equation.



### **Is Low Carbon Concrete Sustainable?**

In the quest to reduce the [8% of global carbon emissions commonly attributed to cement production](#), contractors, engineers, and ready-mixers are turning to concrete that has higher limestone, fly ash, and water content or intentionally absorbs carbon. Mixes with Type 1 Portland Limestone Cement or carbonated concrete are now facing challenges such as slower concrete strength gain and higher carbonation, leading to increased corrosion risks due to failures encountered with these “greener” concrete designs.



After attending a concrete conference where issues like these were a major focus of conversation, MCI® Technical Sales & Product Manager, Ashraf Hasania summarized his concerns about true sustainability: “If I’m having zero-carbon concrete today, but the structure needs to be replaced after five or ten years, then what am I doing?” From

this viewpoint, allowing higher carbon emissions upfront to build a structure that lasts 100 or 200 years could be more sustainable than cutting carbon emissions now but having to replace concrete within the next decade.



### Concrete Durability Through Corrosion Protection

Fortunately, MCI<sup>®</sup> technology offers a tool for enhanced durability in both high- and low-carbon emission situations. Available as concrete admixtures or surface treatments, Migrating Corrosion Inhibitors adsorb on metal surfaces, forming a protective molecular layer that delays time to corrosion initiation and reduces corrosion rates once started. By extending concrete service life, corrosion protection counters the higher carbon output of frequent repairs and premature reconstruction, which demand more high-emission cement production. Interestingly, contractors using MCI<sup>®</sup> admixtures such as [MCI<sup>®</sup>-2005 NS](#) commonly express positive feedback regarding workability and finishing characteristics, unlike many experiences with low-carbon mixes. MCI<sup>®</sup> surface applied corrosion inhibitors (SACIs) can be used for enhanced durability on structures that already exist.

### Building for Long-Term Sustainability

As industry professionals continue to debate the true sustainability of “green” concrete, MCI<sup>®</sup> stands as an important ingredient to address corrosion concerns in both low-carbon and traditional concrete. By focusing on corrosion control for a longer service life, MCI<sup>®</sup> promotes greater sustainability toward the goal of reducing long-term carbon output and resource waste. For those evaluating durability strategies for low-carbon concrete projects, additional research and technical guidance are available through Cortec<sup>®</sup> MCI<sup>®</sup> representatives at [cortecmci.com](http://cortecmci.com).



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Cortec<sup>®</sup> Corporation is the global leader in innovative, environmentally responsible VpCI<sup>®</sup> and MCI<sup>®</sup> 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<sup>®</sup> manufactures over 400 products distributed worldwide. ISO 9001:2015 and ISO 14001:2015 certified. Cortec<sup>®</sup> website: <http://www.cortecvci.com>. Phone: 1-800-426-7832. FAX: (651) 429-1122.

