

# Reduce Embodied Carbon with CarbonCure's Concrete Solution

Information for owners, developers, architects, structural engineers and contractors



### The Embodied Carbon Challenge

You may already know that buildings are the source of 40% of the world's annual greenhouse gas emissions; but did you know that by 2060, the world's building stock is expected to double? That means we're building a new New York City every month for the next 40 years. On top of that, between now and 2060, embodied carbon levels are predicted to account for almost half of the emissions from the built environment. And since concrete is the most abundant building material, innovation in concrete offers the biggest potential solution for embodied carbon reduction. The embodied carbon challenge has a concrete solution.



## Why CarbonCure?

CarbonCure's solution enables the production of the same reliable concrete but with a reduced carbon footprint. The technology injects a precise dosage of carbon dioxide ( $\mathrm{CO_2}$ ) into concrete during mixing where it mineralizes. The mineralized  $\mathrm{CO_2}$  improves the concrete's compressive strength, enabling producers to safely reduce cement content in their mixes and achieve further carbon reductions without compromising quality.  $\mathrm{CO_2}$  mineralized concrete can contribute to a project's LEED points, as concrete made with CarbonCure provides a 4-6% reduction to Global Warming Potential (GWP).





### **Developers & Owners:**

Meet Sustainability Goals

By building with low-carbon building materials—such as CO<sub>2</sub> mineralized concrete—building owners and developers are able to reduce embodied carbon in buildings and thereby establish themselves as leaders who prioritize sustainability.

Interested in examples of sustainable projects built with CO<sub>2</sub> mineralized concrete? View CarbonCure's reference projects.



#### **Structural Engineers:**

No Compromises

Millions of cubic yards of CO<sub>2</sub> mineralized concrete have been produced to date, and testing concludes that CO<sub>2</sub> mineralized concrete has a neutral impact on durability properties. Plus, CO<sub>2</sub> mineralization is compliant with ASTM. Ready to get started? Download and review CarbonCure's CO<sub>2</sub> mineralized concrete spec language inserts.



**Architects: Reduce GWP** 

CarbonCure reduces the GWP (CO<sub>2</sub>e) of concrete, which contributes to your ability to earn points in the following Materials & Resources LEED credits:

- Building Life-Cycle Impact Reduction
- Building Product Disclosure and Optimization – Environmental Product Declarations

Learn more in the LEED infosheet.



**Contractors:** Same Reliable Quality

Countless studies and field demonstrations have shown that  $\mathrm{CO}_2$  has no impact on the fresh or hardened properties of concrete, including colour, texture, durability, workability, pump-ability and finishability. Nor does it impact cycle time or set time. Want to dive deeper? See CarbonCure's detailed FAQ document for a summary of a variety of testing results.

# Build for the Future. Build with CarbonCure.

Available at more than 300 concrete plants worldwide, CarbonCure has been used on thousands of projects ranging from healthcare to higher education, residential developments, and corporate campuses.

For more information about building with CarbonCure concrete, visit <u>carboncure.com</u>. To get in touch with a CarbonCure representative, send us an email at <u>info@carboncure.com</u> or give us a call at +1 (902) 448-4100 (Worldwide) or +1 (844) 407-0032 (North America).

