You see a concrete structure. We see a concrete opportunity to fight climate change.

CarbonCure Concrete Technology
Recycling CO\textsubscript{2} to make simply better concrete

Information package for Design and Construction Community
Design teams specifying CarbonCure concrete products reduce the embodied carbon footprint of their project without adding significant costs, while contributing towards LEED points and highlighting their commitment to sustainability.

CarbonCure's technology is installed in concrete masonry and ready mixed concrete plants across the United States and Canada. The process may be applied to introduce carbon dioxide into any concrete product manufactured by a plant in which the technology is installed.

CarbonCure's technology recycles CO₂ to reduce the carbon footprint of the concrete industry by creating affordable, greener concrete products.

CarbonCure retrofits existing concrete plants with a technology that introduces CO₂ gas into the concrete mix during production. When introduced, the CO₂ undergoes a chemical reaction that chemically converts it into a solid mineral and makes the concrete stronger.

The 2030 Challenge for Products

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A typical building project made with CarbonCure concrete products may reduce as much CO₂ as an acre of forest will sequester over the course of a year!
Concrete's contribution to green building certification has changed with the release of LEED version 4. The reduction of concrete's carbon footprint through the use of CarbonCure's technology allows architectural teams to contribute towards materials and resources credits under LEED version 4. CarbonCure may also contribute towards LEED 2009 credits under the Innovation in Design category. EPDs and HPDs contribute to pilot credit points under LEED 2009.

CarbonCure's technology is retrofitted to an existing concrete plant.

Carbon dioxide (CO₂) gas is sourced from the smokestacks of industrial emitters.

The purified CO₂ gas is delivered in pressurized vessels to the concrete production facility by commercial gas suppliers.

CarbonCure's proprietary delivery system precisely injects the CO₂ into the concrete mix.

The CO₂ is chemically converted into solid calcium carbonate, which is permanently embedded within the concrete.

When the concrete structure is demolished and pulverized, the gas won’t escape – because it no longer exists.

**THE TECHNOLOGY**

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<tr>
<th>NUMBER OF POINTS</th>
<th>LEED VERSION 4 CREDITS</th>
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<td>MATERIALS &amp; RESOURCES</td>
<td>3 POINTS</td>
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**CARBONCURE’S CONTRIBUTION TO LEED**

Concrete's contribution to green building certification has changed with the release of LEED version 4. The reduction of concrete's carbon footprint through the use of CarbonCure's technology allows architectural teams to contribute towards materials and resources credits under LEED version 4.

CarbonCure may provide Environmental Product Declarations (EPDs) and Health Product Declarations (HPDs). One project may use up to 4 of each document for CarbonCure products made by the same manufacturer.

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CarbonCure concrete masonry and ready mixed products have the same colour, finish, and workability.

CarbonCure may provide environmental data to determine the amount of CO₂ reduced in a project, relative to traditional concrete products.

CarbonCure may also contribute toward LEED 2009 credits under the Innovation in Design category. EPDs and HPDs contribute to pilot credit points under LEED 2009.
SPECIFYING CARBONCURE

Working with CarbonCure to reduce the carbon footprint of the concrete in your project is easy!

Step 1:
Visit www.carboncure.com for a complete list of suppliers to find a concrete masonry or ready mixed producer near you.

Step 2:
Contact your local suppliers for product offerings. Interested in sharing the CarbonCure story with your team? Ask your local rep for an AIA-accredited presentation.

Step 3:
Insert the CarbonCure spec language into your concrete masonry or ready mixed specifications (available at www.carboncure.com).

Step 4:
Install a project with CarbonCure Ready Mixed Concrete and/or CarbonCure Concrete Masonry products and request a case study detailing the carbon reduction on your project by emailing specs@carboncure.com.

Step 5:
Promote your commitment to sustainability!

Tridel highlighted its commitment to sustainability to its tenants by mounting a sign that showed how the concrete masonry units in the parking garage helped the environment.

Case Study: MGM National Harbor
Carbon Footprint Reduction by Ernest Maier with CarbonCure Concrete Masonry Units

MGM National Harbor is targeting LEED Gold under LEED for New Construction version 2009. Green technologies will be visible and celebrated within the design. The project team is placing a large emphasis on transparency and disclosure of the project’s building materials.

The amount of CO\_2 recycled in the CMU used in the MGM National Harbor Project is equivalent to the amount of CO\_2 sequestered in 1.2 acres of U.S. forests in one year.

Project Details
Project Type: Luxury Resort
Targeted Completion: July 2016
Location: Prince George County, MD
Owner: MGM Resorts International
Architect of Record: SmithGroupJJR
CMU Supplier: Ernest Maier Inc.

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<tr>
<th>CO_2 Reduction By MGM National Harbor</th>
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<tr>
<td>Number of CarbonCure™ concrete masonry units used in project</td>
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<tr>
<td>Total CO_2 sequestered (CO_2 in)</td>
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<tr>
<td>CO_2 penalty (CO_2 out: additional processing and transportation required for sourcing post-industrial CO_2)</td>
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<tr>
<td>Net benefit: Total CO_2 footprint reduced (CO_2 in – CO_2 out)</td>
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“In coordination with MGM Resorts International, SmithGroupJJR specified Ernest Maier with CarbonCure concrete masonry for the MGM National Harbor because the product’s reduced carbon footprint aligned with the project and client’s sustainability objectives.”

- Russell Perry, Principal
SmithGroupJJR
“Designing beyond sustainability towards abundance is a driving force among the design community. CarbonCure contributes to the crucial challenge of developing ecologically improved concrete by using carbon as an asset to enhance its structural properties.”

William McDonough
Founder, William McDonough + Partners
Co-creator, Cradle to Cradle® Design Framework

Want to learn more? Contact us:
specs@carboncure.com    (902) 442-4020
www.carboncure.com