



CarbonCure Media Primer

Company Background

CarbonCure manufactures a retrofit carbon utilization technology that is installed in ready mix concrete plants around the world. The technology injects carbon dioxide (CO₂) captured by industrial gas companies into concrete during mixing, enabling concrete producers to create high-performing, more sustainable concrete while gaining a competitive advantage.

LEADERSHIP TEAM

CEO and Founder, Rob Niven
President, Jennifer Wagner
CFO (Interim), Keith Abriel
SVP Technology Development, Sean Monkman
SVP Engineering, Dean Forgeron
VP Sales, Sean Zuberbier
VP Marketing, Lori Aizer Bryenton
VP Business Development, Kaja Salovsky

CARBONCURE'S ORIGIN STORY

CarbonCure was founded in 2012 by Rob Niven in Halifax, Canada, where the company's headquarters remain today. Rob had recently graduated with a Masters in Engineering from McGill University, where he studied the benefits of introducing CO₂ to fresh concrete. That year, Rob attended a United Nations summit on Climate Change, where he saw a global demand for solutions to reduce carbon emissions.

Inspired by the summit, Rob thought to himself, "The scientific community understands that CO₂ can be chemically converted to a mineral within concrete. So why can't we find a way to use CO₂ in every-day concrete, and help concrete producers respond to the demand for green building products?" Since 2012, CarbonCure has developed a scalable technology that provides economic advantages to its customers while reducing carbon emissions — truly a win-win solution.

HOW IT WORKS AND BRINGS VALUE

- The injected CO₂ reacts with the concrete mix and becomes a mineral (Calcium Carbonate), increasing the concrete's compressive strength.
- This strength gain enables the reduction of cement content in the concrete mixes without compromising the concrete's strength or performance.
- Concrete has a large carbon footprint due to the carbon intensive process of creating cement, a key ingredient in concrete. Every pound of cement produced emits roughly a pound of CO₂ emissions.
- By virtue of the CO₂ injected and reduced in the mixes, concrete made with CarbonCure reduces CO₂ by an average of 25 pounds per cubic yard (17 kilograms per cubic metre).
- Buildings made with CarbonCure concrete have a reduced embodied carbon footprint (the carbon footprint of building materials).
- Embodied carbon reduction is the current hot topic among the sustainable design and construction communities, as it historically has been overlooked and plays a key role in reducing the carbon footprint of the built environment¹.
- By 2050, embodied carbon emissions will be responsible for almost half of all construction emissions².
- Supplying low-carbon concrete gives ready mix concrete producers a competitive advantage as they gain the ability to market to their local green design and building communities, while reducing the carbon footprint of their concrete (and the concrete industry as a whole).



1. Waste CO₂ emissions are collected from local industrial emitters by gas companies and then purified.

2. The purified CO₂ is stored onsite at the concrete plant and connected to the CarbonCure Technology.

3. The CarbonCure Technology injects CO₂ into the concrete during mixing to produce stronger, greener concrete.

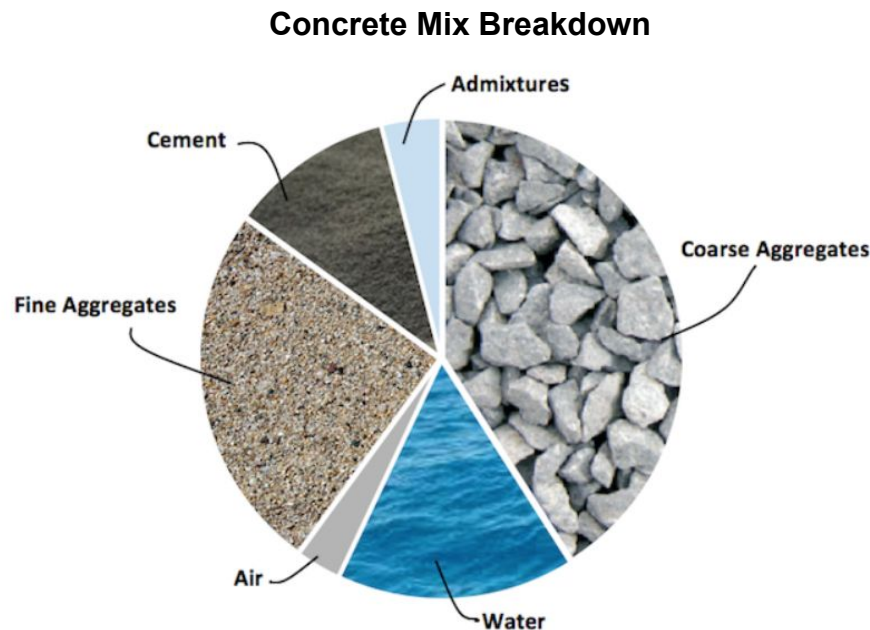
4. Private and public projects are built with CarbonCure concrete, reducing embodied carbon in new buildings.

¹ The built environment is responsible for nearly 40% of greenhouse gas emissions. ([Architecture 2030](#))

² [Architecture 2030](#)

KEY POINTS TO NOTE

- Concrete is a mixture of ingredients, and cement is one component of a concrete mix. **It is vital to distinguish between concrete and cement**, and not mix up the terms (i.e. “CarbonCure is a carbon utilization technology for concrete production” and “CarbonCure enables the reduction of cement content in concrete mixes while maintaining strength requirements”).



- CarbonCure *does not* capture carbon. The CarbonCure Technology is a **carbon utilization technology**³, or a carbon capture technology **application**, that works with carbon captured by a third party.
- Carbon utilization is expected to become a \$1 trillion industry by the year 2030, according to The Global CO₂ Initiative (GCI)⁴.
- CO₂ utilization products for the concrete sector alone create an estimated \$400 billion market opportunity and have the potential to reduce up to 1.4 gigatonnes of annual CO₂ emissions by 2030.
- Among 200 companies evaluated, GCI ranked CarbonCure as the most scalable solution to address this opportunity.

³ It may also be called a carbon removal technology, or a negative emissions technology (NET).

⁴ [Global Roadmap for Implementing CO₂ Utilization.](#)

STYLE AND ACCURACY NOTES

ACCURATE TERMINOLOGY	INACCURATE TERMINOLOGY
<ol style="list-style-type: none"> 1. the CarbonCure Technology, CarbonCure's technology 2. a carbon capture utilization technology 3. ready mix concrete 4. CO₂ (<-- can copy and paste to keep subscript 2 when publishing) 	<ol style="list-style-type: none"> 1. the CarbonCure technology, CarbonCure Technology 2. a carbon capture technology. <i>Note: CarbonCure does not capture CO₂.</i> 3. ready-mixed, ready mixed, ready-mix concrete 4. CO², C02 (with number zero), CO2 (non-subscript 2)

ADDITIONAL RESOURCES

- [About CarbonCure](#)
- [The CarbonCure Technology](#)
- [CarbonCure FAQ Library](#)
- [CarbonCure Producer Map](#)
- [CarbonCure Project Case Studies](#)
- [CarbonCure featured on CNN \(article and video\)](#)
- [Video about CarbonCure from Gates Notes \(Bill Gates' blog\)](#)

- [Architecture2030.org](#)
 - [2030 Challenge for Embodied Carbon](#)
- [The Carbon Leadership Forum](#)
 - [Structural Engineers 2050 Challenge](#)
 - [The Embodied Carbon Network](#)

- [Bringing Embodied Carbon Upfront](#) (World Green Building Council)
- [Embodied carbon: the blindspot of the buildings industry](#) (Canadian Architect)
- [How to build a circular economy that recycles carbon](#) (Vox)
- [These uses of CO₂ could cut emissions — and make trillions of dollars](#) (Vox)
- [Global Roadmap for Implementing CO₂ Utilization](#) (Global CO₂ Institute)
- [The cement industry is taking concrete steps to lower its emissions](#) (Fast Company)
- [5 key ways to reduce GHG emissions in building construction](#) (Smart Cities Dive)
- [Cement technology roadmap plots path to cutting CO₂ emissions 24% by 2050](#) (International Energy Agency)