



Building a More Resilient Future with Concrete

Concrete is everywhere — in our homes, schools, hospitals, roads, bridges and more — the literal foundation of our society. It's the most widely used human-made material on Earth, with about three tons used every year for each person on the planet. This is because concrete is strong, resilient, reliable and essential for building the world around us.

But concrete also comes with one big challenge: its carbon footprint.

Many people confuse cement with concrete, but they are not the same thing — cement is actually just one ingredient in concrete. Concrete is made by combining cement with water, aggregates like sand and gravel, and sometimes

chemicals, to ensure it meets specific performance requirements. Cement acts as the binder that holds all of these materials together, giving concrete its strength.

However, cement manufacturing is carbon-intensive. For every pound (or kilogram) of cement produced, nearly one pound (or kilogram) of carbon dioxide (CO₂) is released into the atmosphere. As a result, cement production is responsible for an estimated 7% of the world's CO₂ emissions — three times more than the aviation industry.

As we build more infrastructure to meet the needs of growing cities, the challenge of reducing the carbon footprint of concrete is more important than ever.

Turning Concrete Challenges into Opportunities

What if, instead of adding to the CO₂ challenge, we could reduce emissions and even remove CO₂ from the atmosphere? **That's where CarbonCure comes in.**

CarbonCure's carbon utilization technologies work by injecting recycled CO₂ into concrete during mixing. Immediately, the CO₂ reacts with cement material in the mix and transforms into tiny particles of calcium carbonate, permanently stored within the concrete. Even if the concrete structure is later demolished, the CO₂ is now a mineral and won't return to the atmosphere.

This process not only embeds CO₂ within the concrete — removing it from the atmosphere — it also maintains the strength of the concrete so less cement is required in each truckload. It's a win-win: Less cement means less carbon emissions.

Why this matters

CarbonCure's solution is helping to change how concrete is made by:

- 1. Reducing Emissions**
By mineralizing CO₂ that would otherwise contribute to climate change, we can transform concrete plants into carbon removal factories.
- 2. Maintaining Concrete's Strength**
The addition of CO₂ maintains the strength of the concrete, reducing the need for excess cement and reducing concrete's carbon footprint.

How This Benefits Your Community

By using CarbonCure, concrete producers are helping to build more sustainable communities.



Rebalanced Atmosphere

Carbon utilization in products like concrete is helping restore a healthy balance of CO₂ in our atmosphere.



Sustainable Infrastructure

The concrete used in your local roads, buildings and bridges will be as strong and durable as ever — but with a smaller carbon footprint.



Supporting Global Climate Goals

As cities grow, and our climate changes, we must meet the demands of new construction and build more resilient communities without increasing emissions.

A Better Future for Everyone

With CarbonCure, concrete producers can continue to make the world's most important building material — but in a way that's better for the environment and for future generations. It's a proven, pragmatic solution: a more sustainable future built with greener concrete.

Concrete That Matters

To learn more, visit carboncure.com or speak to your local concrete producer.