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Lauren Concrete & CarbonCure: A Success Story

How a Central Texas ready mix producer adopted CarbonCure to meet the growing demand for sustainable concrete.

Introduction

Cities across Central Texas are on a mission to protect and improve the quality of life for their people and for future generations. Austin, the birthplace of Lauren Concrete, is leading the charge on sustainability with an ambitious goal to achieve net-zero greenhouse gas emissions by 2050.

Lauren Concrete stepped up to the mark to help its home city become carbon neutral and build a more climate-resilient, adaptive city. By implementing CarbonCure at all of its Central Texas plants, Lauren Concrete was well equipped to meet the growing demand for low-carbon concrete in the region.

Following the success of these initial rollouts and the subsequent supply, operations, and cost efficiencies gained, Lauren Concrete has plans to expand CarbonCure to all plants across its three operating districts—Central, East, and West Texas.

About Lauren Concrete

Ronnie and Ray Klatt founded Lauren Concrete in 1986. In the beginning, the Klatts had just one plant, three trucks, and a handful of employees. The brothers had a challenging beginning—suppliers were tough on them, competitors tried to squeeze them out, and they had very little money.

The Klatts had a mantra that "failure is not an option," so they persisted and were ultimately rewarded with great success. As of May 2021, Lauren Concrete is the leading provider of ready mix concrete in Central Texas with 24 plants and approximately 250 trucks serving a rapidly growing region.

The company is still family-owned and operated and prides itself on its people and culture. Safety, customer service, and innovation are top priorities for Lauren Concrete. Over the past few years, the company has been quick to embrace new technologies that would impact these priorities and help deliver superior products and services to its customers.



Lauren Concrete's Sustainability Mission

Lauren Concrete has always been an early adopter of new technologies that can help the company on its mission to deliver World Class service to their customers, employees, and the communities they serve.

With a growing emphasis on sustainable building in the markets it serves, Lauren Concrete saw an opportunity to gain first-mover advantage with sustainable concrete.

Following the successful implementation of new technologies like GPS tracking to enhance fleet optimization, software for real-time quality monitoring, and sensors for gathering strength and temperature data, Lauren Concrete was eager to explore technologies to deliver greener concrete to its customers. CarbonCure was the next logical step on Lauren's innovation journey.

"We looked at where the city of Austin was heading in terms of sustainability and felt that low-carbon concrete should be a focus for Lauren Concrete. It is very important for us to stay ahead of new technologies so when folks ask about them, we're already past our learning curve and ready to hit the ground running."

> Renee Drosche Key Account Sales Manager, Lauren Concrete



Implementing CarbonCure

Lauren Concrete's implementation of CarbonCure was seamless. The team has a rigorous testing process for any new mix ingredients or technologies and CarbonCure passed every test in every application.

Testing and Evaluation

Once CarbonCure was installed at Lauren's pilot plant, the team tested its standard 3000, 4000, and 5000 psi (20.7, 27.6, and 34.5 MPa) mixes for various use cases. Approximately half of Lauren's concrete volume is poured on residential projects, with 30-35% going to heavy commercial projects. The remainder is on specialty works like shotcrete and civil projects.

Cory Miller, Quality Control Manager at Lauren Concrete, admitted that he was wary of reducing cement content in his mix designs. He wasn't around for the initial implementation of CarbonCure, but after seeing the technology in action and reviewing the data, he was convinced of its efficacy.

As of May 2021, Lauren Concrete is using CarbonCure in approximately 120 mix designs; and that number is growing steadily.

"We tested CarbonCure with cement and ash to see how reactive it would be. After that, we found our dosage rate. We are seeing significant strength increases from our standard control mix with CarbonCure, and I'm confidently reducing cement content by 6%. Even with this reduction, we are still achieving overdesign."

> Cory Miller Quality Control Manager, Lauren Concrete



Quality Control

Lauren Concrete's quality control ethos is that World Class Concrete doesn't happen by accident—it's the result of the careful engineering of materials and processes. Despite this careful engineering, sometimes the best reward is not effusive praise from customers, but silence.

Lauren received no reports of any issues with the concrete delivered. In fact, customers were very pleased with the pumpability and finishability of the concrete and noticed no difference from the quality product they were used to receiving from Lauren.

"I was sold on CarbonCure after the strength testing. Hearing our customer's saying that the concrete pumpability and finishability is the same or better just sold me even more."

> Cory Miller Quality Control Manager, Lauren Concrete





Sustainable Project Success

Armed with tools and support provided by CarbonCure's Market Development team, Lauren Concrete has won numerous projects with its new sustainable mix designs.

"CarbonCure provides our sales team with something solid to work with that puts us ahead of the competition."

> Renee Drosche Key Account Sales Manager, Lauren Concrete

Meeting Sustainability Targets at University of Texas

One of the first commercial projects with CarbonCure was at the University of Texas at Austin, where Lauren was supplying the concrete for SpawGlass, the general contractor on the project.

At the University of Texas, almost every project has sustainability requirements, including objectives for low-carbon concrete. The University's project engineers had a lot of questions about CarbonCure. "Initially there was some hesitancy from the engineers, but we got in front of them and had those conversations. Through the conversations they discovered the value and once they saw the quality of the CarbonCure mixes, they were on board," said Renee.

"The main question from engineers is: do you have any data? We're able to show data on the mix designs and offer a tour of the plant to put them at ease," said Cory.



Delivering the One Millionth Truckload of CarbonCure Concrete at H-E-B Lake Austin

Lauren Concrete holds the distinction of supplying the one-millionth truckload of CarbonCure concrete. In December 2020, one of the Lauren Concrete trucks delivering concrete to the H-E-B Lake Austin project hit the jackpot!

As of January 2021, Lauren Concrete has delivered 2,604 cubic yards (1,990 cubic metres) of concrete made with CarbonCure for this project, diverting over 65,000 pounds of CO_2 from the atmosphere. That's more than 39 acres (16 hectares) of forest sequestering CO_2 for a year.

"We were proud to get the millionth truckload—I know producers all over the country wanted that," said Renee. The team used the event as an opportunity to create engaging marketing initiatives with H-E-B, a beloved grocery store chain in Austin that has ambitious sustainability goals. H-E-B is building two new stores and is interested in using Lauren's CarbonCure-based mix designs.

"We were able to shift our focus from selling to the marketing team to selling to the actual construction team and showing them that the product is breaking higher and helps meet sustainability goals," said Renee.



Where to Next?

The team at Lauren Concrete is convinced that CarbonCure makes good business sense and is in the process of expanding CarbonCure to all of its 24 plants.

"The combination of supply, operations, and cost efficiencies makes CarbonCure a no-brainer for us. We've had great feedback, and we have the data from our quality testing, so it makes sense to put it everywhere."

> Renee Drosche Key Account Sales Manager, Lauren Concrete

Bringing additional plants online takes just a few weeks so Lauren Concrete is prioritizing the rollout based on fleet optimization.

"When we don't have CarbonCure at certain plants, it makes us less efficient with our fleet. We're prioritizing plants that are close to the locations that already have the technology so that we can run our entire fleet more optimally," said Renee.

Renee encouraged other forward-thinking regional producers to consider CarbonCure and described her experience meeting with other concrete producers around the country when she was first evaluating CarbonCure.

"The industry is very open. People are happy to share their experiences and implementation strategies so don't be afraid to ask questions," said Renee. "Our team would be happy to host other producers who are considering CarbonCure and who want to come to see how it all works."

Build for the Future. Build with CarbonCure.

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).