



## CASE STUDY

# TONGYANG INC.

## TONGYANG sets a new standard for sustainable concrete in South Korea with CarbonCure

In a significant move toward sustainable concrete design, **TONGYANG** successfully integrated CarbonCure’s innovative technology into its operations. This marked a monumental step in advancing eco-friendly construction practices across South Korea and introduced a model for the future of sustainable building materials.

### TONGYANG’s Environmental Focus

Established in 1955, TONGYANG has a 70-year track record of innovation in South Korea’s construction industry.

In addition to the construction and engineering arms of the business, TONGYANG operates 22 ready mix concrete plants across various strategic locations, including the Gyeonggi, Gyeongsang, Chungcheong, Jeolla, Gangwon and Jeju zones in South Korea. The company is always seeking new ways to produce sustainable concrete and promotes the use of recycled aggregates and supplementary cementitious materials in its mixes.

The decision to adopt CarbonCure’s technology was the next logical step on TONGYANG’s sustainability journey. It also helped offer construction companies in the region a unique value proposition centered on carbon neutrality — a critical factor in today’s environmentally conscious market.

“I would highly recommend CarbonCure to other concrete producers. It is a commercialized technology that reduces carbon emissions within buildings through the most widely used construction material globally: concrete.”

**Jinwook Bang**  
Senior Manager of TONGYANG Research Institute | TONGYANG INC.

### TONGYANG’s Sustainability Progress



**3,641 square meters** of sustainable concrete made with CarbonCure poured



**639 truckloads** of sustainable concrete made with CarbonCure delivered

## TONGYANG and CarbonCure

Several stakeholders were involved in the process of researching, testing, and ultimately approving the use of CarbonCure in TONGYANG concrete, including the construction management team of the TONGYANG Construction Service Division, the studio project construction site, and the Research Institute of the Construction Materials Division.

Adopting any new technology poses significant challenges for a business, particularly when it introduces concrete technology not previously seen in South Korea. The TONGYANG teams initially held concerns over how CarbonCure's mineralization process might affect the high-quality concrete its customers expect. Through rigorous testing, however, it was conclusively demonstrated that concrete produced with CarbonCure technology not only met but, in some instances, surpassed the performance of traditional concrete.

### Initial Implementation

The plant integration and onboarding process was streamlined and efficient, thanks to CarbonCure's comprehensive onboarding guidance and the supportive collaboration between both companies' research departments.

The technical support provided by CarbonCure's teams was instrumental in optimizing mix designs based on lab test results using samples from TONGYANG's unique raw materials.

### Overcoming Specification Challenges

As with any new technology, challenges arise in convincing specifiers—architects and engineers—that the solution is safe for use in infrastructure.

TONGYANG overcame this challenge by presenting pre-quality test results to demonstrate the equivalent quality level to conventional concrete. This persuasive approach has been effective, especially for concrete pouring in areas with minimal impact on the building structure.

To build confidence throughout the project, TONGYANG provides contractors and design teams with regular updates, including:

- Verification of quality results through pre-delivery testing
- Confirmation of quality results after a small-scale delivery
- Fulfillment of requested quantities upon successful quality verification

"CarbonCure provided an opportunity to enhance the compressive strength in this case. Along with no compromise to air content and slump, this was key for our success"

#### Jinwook Bang

Senior Manager of TONGYANG Research Institute | TONGYANG INC.

"We chose to partner with CarbonCure because its CCUS (Carbon Capture, Utilization, and Storage) solution is already proven in the concrete industry, with successful implementations in various countries worldwide."

#### Jinwook Bang

Senior Manager of TONGYANG Research Institute | TONGYANG INC.



## Performance in Market: Studio Eugenia

Located just 30 minutes from Sangam DMC, the hub of South Korea's media industry, Studio Eugenia promises to be the country's top destination for television and film production with a comprehensive suite of expansive, high-ceiling studios within a single 28,770-square-meter complex with all essential amenities. The complex is home to four studios with drive-on access, dressing rooms featuring en suite bathrooms, production office suites, and parking for 167 vehicles.

The new state-of-the-art facility is the first of its kind and the largest in the region. It is uniquely equipped to support a diverse array of production requirements, from television series and broadcast studios to feature films, music videos, commercials, and special events.

As well as being a pioneer in production facility innovation, Studio Eugenia is paving the way for environmentally sustainable construction in South Korea. It is the first construction project to use concrete made with CarbonCure technology.

The use of CarbonCure on Studio Eugenia demonstrates TONGYANG's commitment to the communities it serves, from the local creative community that will benefit from the studio to the wider community that will benefit from the promotion of sustainable construction and environmental stewardship.

**Project:**

Studio Eugenia

**Location:**

Unjeong New Town, Paju, South Korea

**Owner:**

TONGYANG Co. Ltd.

**Concrete Suppliers:**

TONGYANG Co. Ltd. and Eugene Corporation Co., Ltd.

**Architect:**

DMP Partners

**Construction Area:**

13,322m<sup>3</sup>

**Completion:**

2024

## Creating Competitive Advantage

The implementation of CarbonCure allowed TONGYANG to create a distinctive niche within a competitive ready mix landscape in South Korea. By providing construction managers with a low-carbon concrete option, TONGYANG has built a reputation as a pioneer in sustainability and environmental stewardship.

## What's Next for TONGYANG

TONGYANG's successful integration of CarbonCure sets a benchmark for the construction industry in South Korea. It not only demonstrates a viable path toward reducing carbon emissions but also reinforces the company's position as a leader in sustainable construction practices.

As TONGYANG continues to explore innovative solutions for a greener future, its partnership with CarbonCure remains a cornerstone of its commitment to environmental sustainability.

"CarbonCure stood out as an attractive option for our business by offering a differentiated value proposition for construction companies interested in carbon neutrality compared to other ready mix competitors."

**Jinwook Bang,**

Senior Manager of TONGYANG Research Institute | TONGYANG INC.

# Build your Business. 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 [carboncure.com](https://carboncure.com). To get in touch with a CarbonCure representative, send us an email at [info@carboncure.com](mailto:info@carboncure.com) or give us a call at +1 (902) 448-4100 (Worldwide) or +1 (844) 407-0032 (North America).

*All CO<sub>2</sub> savings values provided by CarbonCure are estimates and should not be used for carbon accounting purposes. Savings should only be claimed by the attribute owner. To purchase these environmental attributes from CarbonCure and claim them in carbon accounting, please contact [support@carboncure.com](mailto:support@carboncure.com) to discuss relevant pathways.*