

ADHESIVES TECHNOLOGY CORPORATION

A New Future for Code Compliant Anchoring Adhesives

A Legacy of Innovation

Adhesives Technology Corporation (ATC) was founded in 1978 and, within 10 years of its inception, changed the commercial anchoring adhesives industry with its introduction of **ULTRABOND 1**, the first ever dual component epoxy system to fit in a standard caulking tool. This cartridge-based delivery system was often imitated and remains a staple in the anchoring adhesive industry to this day. In the decades to follow, ATC's continued dedication to strategic innovation has allowed for sustained growth, culminating in its 2018 alliance with Meridian Adhesives Group. A calculated approach to an evolving industry has provided ATC with a unique perspective, and the result is likely to change the industry yet again.

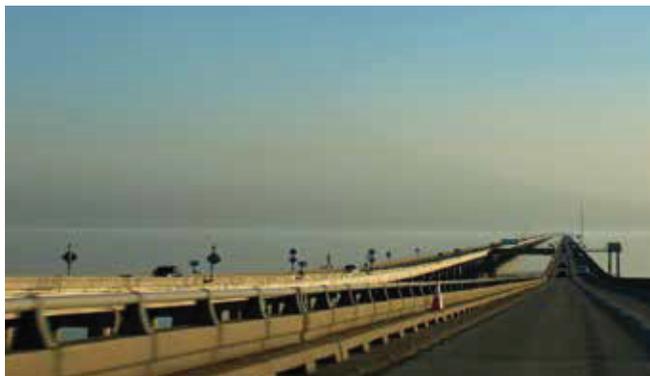
What's Changing?

Historically, individual states have maintained their own approval lists for adhesive anchoring materials for use on infrastructure projects, while structural projects have been regulated according to IBC/IRC guidelines and require anchoring products certified by ICC or IAPMO, ensuring higher performance and quality standards as defined in ACI 355.4. In January 2018, however, the FHWA announced that all post-installed adhesive anchors used in Federal-Aid projects must be tested to ACI 355.4 and designed to ACI 318. This is a critical regulatory change that has effected significant change in DOT regulations across the country. Add to that the executive order signed in January 2019 that mandates, "the use of goods, products, and materials produced in the United States,"¹ on infrastructure projects utilizing federal funds, and suddenly designers and contractors are faced with the necessity to find a domestically manufactured product that meets or exceeds IBC/IRC requirements, whether they are designing a high-rise building, a tunnel, or a bridge.

Speaking of Bridges...

According to the most recent Report Card issued by American Society of Civil Engineers (ASCE) in 2017, America's infrastructure rates a D+ on a scale from A-F. Almost 40% of the nation's bridges are at least 50 years old and, in 2016, over 56,000 were deemed structurally deficient. Estimates to repair these bridges top \$120 billion. In 2015, ATC began exploring the role its products could play in addressing the needs of designers and contractors as they carry out this immense scope of work.

Traditionally, the highest performing adhesive anchoring products have been manufactured primarily by European companies. They have produced them almost solely in cartridges, neglecting the bulk application needs of contractors and designers focused on higher volume infrastructure work common in the U.S. This forced these designers and contractors to choose between performance and ease of use and, in many cases, between domestic and foreign adhesives. Taking all of this into consideration and foreseeing an inevitable



ULTRABOND HS-1CC, first-ever code approved anchoring epoxy in bulk, specified by GEC Engineering for use in critical infrastructure applications by JB James Construction to repair the Lake Pontchartrain Causeway Bridge in Louisiana. Courtesy of Navin75 via Flickr.com.

merger of the two construction sectors, ATC began a 4-year development effort to create the adhesive anchoring epoxy known today as **ULTRABOND HS-1CC**, a high-performance anchoring epoxy that would satisfy the requirements of both commercial construction and infrastructure specifiers. In 2017, ATC began independent and statewide testing of its new, domestically produced flagship product, and in 2018 received a structural building code compliant approval report (ICC ESR-4094). Through this printing, HS-1CC is included on authorized materials lists in 31 of the 40 states that maintain such lists, and remaining states are pending.

Finally, a Solution

ULTRABOND HS-1CC's patent-pending technology makes it the *first and only anchoring adhesive approved by ICC in both cartridge and bulk dispensing systems*. It boasts the highest average bond strength of any anchoring epoxy on the market today and is made in the USA. This is why, shortly after receiving its ICC report, HS-1CC was specified as the anchoring epoxy for the Lake Pontchartrain Causeway bridge project in Louisiana (targeted to begin in mid-2019), making it the first project ever to utilize a code approved anchoring epoxy delivered via bulk dispensing pumps for better economy, speed, and lower environmental impact.

Whether the need is for high volume bulk dispensing for roadway dowels, higher performance for critical structural connections, high short-term temperature resistance (up to 205°F), or underwater installation, a single product can be specified. For projects where environmental concerns require a product which is drinking water safe, nonylphenol and lead-free, and packaged in bulk for reduced environmental impact, ULTRABOND HS-1CC will meet those requirements as well. After 40 years, Adhesives Technology continues to innovate, and its latest creation promises to be the new standard on jobsites into the foreseeable future.

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¹www.whitehouse.gov/presidential-actions/executive-order-strengthening-buy-american-preferences-infrastructure-projects