



Project Summary

C.D. Smith Construction had a challenging schedule for the Acuity Insurance 125,000 square foot Northeast Parking Structure and Recreation Center they were awarded. The design was based on post tension construction which requires considerable time before closure pours can be completed after the cables are tensioned.

C.D. Smith approached their Ready Mix producer, Carew Concrete, to discuss options to reduce the shrinkage of the concrete in hopes that they could minimize the waiting time for the closure pours. Carew optimized the 5500 psi design for the concrete. In addition, they utilize PREVent-C[®] technology to provide even lower shrinkage and as volume stable a slab as possible.

PREVent-C technology is one of the only concrete admixtures that has the ability to maintain volume stability and defend against shrinkage cracks, especially in accelerated concrete. By blending expansive components with pore water surface tension reduction, PREVent-C has been proven to reduce shrinkage cracking by 90 to 100 percent, depending on the mix design and amount utilized.

Carew worked with a local lab, Giles Engineering Associates, Inc. to independently verify the shrinkage values and strength of the specially designed mix. The reduced shrinkage values meant the time needed for the closure pours to be greatly reduced, saving valuable time in the construction process.

Owner: Acuity Insurance

Concrete Contractor: C.D. Smith Construction

General Contractor: C.D. Smith Construction

Ready-Mix Supplier: Carew Concrete

Products: PREVent-C@500 Shrinkage-Reducing/Compensating Admixture