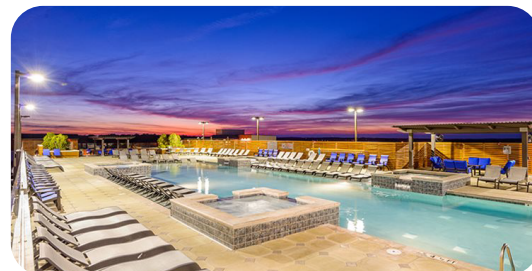




Case Study: The Standard at Athens

High Performance Rheology Modifier and Mix Stabilizer

Project Name: The Standard at Athens - Rooftop Pool
Location: Athens, GA
Date: March 2016
Application: Shotcrete
Project Size: 120 cu. yd.
Contractor: Thomas Concrete



Description

This ACI Award Winning Project added an Olympic sized swimming pool on top of the parking structure of the prestigious student housing complex - The Standard at Athens. In order to add a pool to the existing structure, concrete was the only viable solution. Shotcrete specifically, was used to achieve rapid and accurate construction.

Issue

The difficulty associated with this project revolved around how to pump the 120 cubic yards of concrete onto the top of the building while the mix remained optimal for placement and workability. The concrete was pumped from the street, 400 feet to where the pool was being cast on the roof of the parking structure, and into place. Thomas Concrete decided that careful material selection, well-proportioned concrete mixture, and Acti-Gel® 208 was the winning combination for success.



Acti-Gel® 208's Solution

Instead of the typical 1" to 2" slump on a shotcrete mix, this pool was pumped and shot at a 3" to 4" slump, making the process faster and more efficient. The construction team was able to shoot this material thicker and taller in one pass than what is typical with conventional shotcrete. The entirety of the pool walls were shot in just one single pass, verses the common two to three passes. Acti-Gel® 208 treated shotcrete was used to build out an 8" to 10" wall in one pass instead of the multiple 2" passes which are typical with shotcrete. Because of its well-engineered properties, this innovative shotcrete produces less rebound material, resulting in approximately 50% less waste. Due to waste reduction and speed of application this project is an example of how concrete can be sustainable and efficient.

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