



FAST AND SMOOTH PATCHING FOR TILT-UP CONSTRUCTION

at Wal-Mart Distribution Centers

Project Type:

Industrial

Application:

Tilt-up repairs and patching

Location:

Davenport, FL

Project Owner:

Wal-Mart Stores Inc.

Contractor:

Samuel Express Tilt Patch Inc.

Project Size:

2.2 million sq. ft.

Products:

Rapid Set® WunderFixx®, Mortar Mix

Wal-Mart Stores Inc. is on a quest to get merchandise to e-commerce customers more quickly and at a lower cost by adding new distribution centers in strategic locations. As part of this initiative, the retailer recently added two fulfillment centers in Davenport, Fla., dedicated to shipping online orders.

Construction of the distribution centers was broken into two large tilt-up concrete projects under separate general contractors. The first building is 1.2 million square feet while the second is just shy of 1 million square feet. After the concrete panels were erected for each structure, Samuel Express Tilt Patch Inc., Tampa, was brought in to perform patching on the imperfections and pinholes on the outer sides of walls.

Samuel Express Tilt Patch has built a reputation in the tilt-up industry for fast, high-quality work. To ensure fast and smooth patching, the contractor uses CTS Cement's Rapid Set® WunderFixx® Concrete Smoothing Compound and Rapid Set® Mortar Mix. Both products are made with Rapid Set® Cement, a specialty fast setting hydraulic cement for long-lasting results.

THE NEED FOR PATCHING ON NEW CONSTRUCTION

All tilt-up construction projects require patch work after the concrete panels have been erected. This is due to imperfections and pinholes on the outer side of walls, which must be patched prior to painting. Tilt-up concrete panel repairs call for a strong, high-quality material that sets quickly. The material must adhere to the existing panel and provide a flat, even surface that can be sanded down for a smooth finish.

For the Wal-Mart distribution facilities, the Samuel Express crew first patched, by trowel, all loading dock areas before moving inside to perform structural spall repairs and patch lift holes with Mortar Mix. The high-performance blend of hydraulic cement and quality sand is mixed with water to produce a workable, high-quality mortar that provides rapid strength gain, high durability and low shrinkage. It sets in 15 minutes and achieves a compressive strength of 2,500 psi in one hour.

The crew also used WunderFixx to skim over all imperfections. The material was applied by trowel at up to 1/2-inch thick to achieve a smooth, uniform concrete appearance. The fast-setting, durable, one-component concrete patching material is formulated with hydraulic cement, high-performance polymers and a finely ground aggregate. Suitable for moist environments on interior and exterior projects, it is ideal for patching and detailing on tilt-up panels, precast concrete, concrete block and other concrete surfaces.

The patched areas were sanded down for an ultra-smooth finish and ready for painting roughly four hours later. There was no sign of the repair work performed after paint was applied.

In all, it took 100 bags of each product and six months to complete repairs on both of the more than 1-million-square-foot buildings. Both the general contractors and owners were pleased with the final result.

When completed, the e-commerce fulfillment centers are expected to bring more than 600—and possibly more than 1,000—new jobs to Davenport.

CTS Cement Manufacturing Corporation manufactures Rapid Set professional-grade cement products for concrete repairs and new construction projects. Contractors, owners, engineers and architects choose Rapid Set to eliminate problems they have with other concrete repair materials, to save time and money, when superior durability is required and results need to be aesthetically pleasing. For more information about CTS Cement and Rapid Set, please visit www.CTScement.com.

ABOUT CTS CEMENT

