



System-K™ Pour at Sofa Express Warehouse (Portland, TN)

## SOFA EXPRESS WAREHOUSE

Utilizes System-K™ for Floors to Achieve Significant Savings in Maintenance & Repair

**Location:**

Portland, TN

**Size:**

70,000 square feet

**Engineer:**

Collins Construction

**Concrete Contractor:**

Thessen Concrete Contracting

**Concrete Producer:**

Garrot Brothers Concrete

**Product:**

System-K™

System-K™ fiber reinforced shrinkage-compensating concrete was used for this 70,000 square foot warehouse project in Portland, TN to achieve floor flatness specifications and significant savings in maintenance and repair.

Slab dimensions were 110 x 130 feet with construction joint spacing at 130 feet and no saw cut control joints. After final finishing, a 7-day water cure was applied to allow maximum strength gain and expansion of the shrinkage-compensating cement. The use of K-Fibers™ allowed minimal steel reinforcement with no drying shrinkage cracking.

System-K was placed by Thessen Concrete using traditional ready mix production. Due to the elimination of rebar from the floor slab, the concrete did not need to be pumped into place. The absence of the steel also made it easy for laser screeds and ready mix trucks to maneuver around the placement area. A smooth trowel finish was achieved with no visible evidence of fibers on the finished surface.

Perry Thessen, who has placed many slabs with shrinkage-compensating concrete says, “There’s no comparison between a shrinkage-compensating concrete floor and a conventional floor. Conventional floors have a lot of joints and can curl and crack, but a System-K shrinkage-compensating concrete floor doesn’t have those problems.”

Excellent floor flatness and levelness numbers were achieved five weeks after concrete placement, averaging FF of 98.6 and FL of 61.0. At the 8 week post-placement inspection, there were no cracks found in the slab. This pleased owner has already committed to use System-K on future projects based on the performance of the Portland, TN project.