The following project was completed in the spring of 2014 utilizing Concrete Fiber Solutions’ CFS 100-2 ASTM Type II concrete-reinforcing steel fibers. In floors with extended joints, such as at the WhiteWave facility, steel fibers take on the primary role in preventing visible cracks while allowing monolithic slabs up to 110 ft. long.

For more information on CFS products, please contact Concrete Fiber Solutions at (217) 651-6317.
CFS IN THE FIELD
WHITEWAVE, HARRISONBURG, VA

PROJECT DESCRIPTION
Whiting-Turner was building an expansion to an existing WhiteWave Foods Company facility. Based on the original cooler expansion design, the contractor was challenged by the amount of slab which could be placed in a day, which also limited the method of screeding. With the goal of increasing construction productivity, the contractor approached Providence Engineering to review various design and construction options.

THE OPTIONS
The Contractor considered four options for the project:

1. Shrinkage-compensating concrete
2. Unreinforced floor with dowel baskets
3. 35# dosage of CFS100-2 steel fibers with joints @ 14'
4. 60# dosage of CFS 100-2 steel fiber with joints at column lines

The team decided that Option 4 would be the best solution. This option would reduce the number of slab placements to six, allow the use of a laser screed, and eliminate a large number of joints in the building, which have caused problems for the owner in the past.

THE OUTCOME
The finished floor was 141,000 square feet and was placed in six days. The joints were extended to 43’ x 57’ without any intermediate cracks, and the floor tolerances were exceeded for this project. Another benefit was little to no curling at any of the joints. The owner is very pleased with the floor.

Preparing to screed.

PROJECT OVERVIEW
Contractor:
Whiting-Turner

Concrete Contractor:
Lloyd Concrete/
Precision Concrete

Ready Mix Supplier:
Superior Concrete

Thickness:
12”

Joint Spacing:
43’x57’

Fiber Dosage:
60# CFS 100-2

“Our new floor has exceeded our expectations. We are pleased with the quality of the floor, both esthetically and functionally. Fewer joints, easier installation, less visible cracking, and less impact on us financially are the top reasons why we will continue to use CFS.”

WhiteWave Management