

Warehouse Floor Slab

Bon Tool Company, Gibsonia, PA
October 2002

Ownership of the Bon Tool Company in western Pennsylvania investigated the use of fiber reinforcement as an alternative to conventional steel in their large warehouse/office space addition. Approved by both owner and project engineer, FORTA-FERRO® was used in over 55,000 square feet of 6" thick warehouse slab-on-grade, and 15,000 square feet of 3" thick slab-on-structural metal deck for office space. The 2-1/4" long structural fiber was used in lieu of steel, at a dosage of 5 lbs./cubic yard in the floor slab and 3 lbs./cubic yard in the office deck. The FORTA-FERRO® mixed very uniformly, and eased reinforcement placement labor and difficulties associated with steel on this laser screed project. Placement pins were also installed in the floor slab to measure overall slab dimension change over several saw-cut control joints (measurements noted in the chart below). FORTA-FERRO® provided the owner with an easy-to-use and cost-effective method of crack control, and with an excellent surface finish.

Slab Dimension Changes	
Age	Distance
Initial	74' 0"
1 day	74' 0"
3 days	74' 0"
10 days	74' 0"
28 days	74' 0"
3 months	74' 0"



Project Description:

- Owner:** Bon Tool Company, Gibsonia, Pennsylvania
- Engineer:** Brace Engineering, Pittsburgh, Pennsylvania
- Concrete Supplier:** DuBrook Ready Mix, Butler, Pennsylvania
- Concrete Contractor:** Hohman Cement Contractors, Pittsburgh, Pennsylvania
- Fiber:** FORTA-FERRO® 2-1/4" structural synthetic
- Fiber Dosage:** 5.0 lbs./cubic yard (floor slab) and 3.0 lbs./cubic yard (office deck)



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