

STRUX® 90/40

Synthetic Macro Fiber Reinforcement

A new school floor gets top marks



The Ambrose Elementary School

Winchester, Massachusetts

While it had served generations of school children, the old Ambrose Elementary School building in Winchester, Massachusetts had grown old and tired. So to meet the educational needs of children in the region, the town set out to build a new Ambrose School building. While the old facility was a relic of the past, the new, larger building would be thoroughly state-of-the-art.

This kind of modern thinking went into the building from the ground up—starting with

the slab-on-ground concrete floor of the school. A key consideration was providing the strength and crack control needed, while protecting the vapor barrier when the concrete was placed. Any breaks in the barrier could trap moisture in the concrete floor, which would then cause the VCT (Vinyl Composition Tile) on top of the concrete to literally become unglued, as moisture would cause the tiles to loosen and fail.

To avert any of these concerns, project engineer Reg Roome of LeMessurier Consultants specified Grace's STRUX® 90/40 synthetic macro fiber reinforcement added at 5 lbs. per cubic yard at the batch plant. STRUX replaces welded wire mesh that can easily puncture vapor barriers. In addition, unlike wire mesh that requires added labor to place and is difficult to position properly and

"STRUX is our standard spec in slab-on-ground construction. We get better results at a more cost-effective price."

Reg Roome
LeMessurier Consultants

evenly, STRUX synthetic macro fibers are always consistently placed since they're dispersed throughout the mix—providing uniformly tight crack control and improved residual strength. STRUX can also replace light reinforcing bars and steel fibers in slab-on-ground applications. “STRUX is our standard spec in slab-on-ground construction because we get better results at a more cost-effective price than other solutions out there,” said Roome. “We want to eliminate any potential problems we can. STRUX gives me confidence we can get the performance we require in these slabs and with no surprises.”

Without the problems of dispersement and finishing typically associated with steel fibers—or the added labor and risks of handling and placing welded wire mesh reinforcement—the 40,000 square foot job proceeded

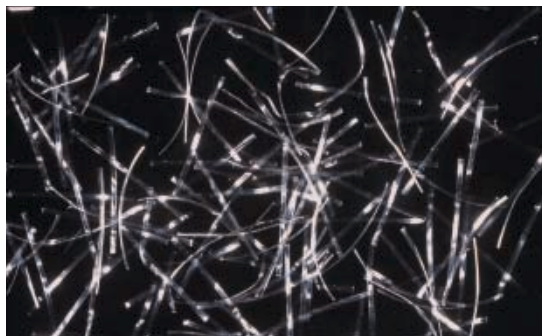


The use of the latest generation of synthetic macro fibers produced a smooth, slick finish quickly and efficiently.

“With STRUX, we got the strength we needed and a smooth power-troweled finish.”

Richard McGuinness.
Jackson Construction

smoothly from production, to placement, to finish. “We didn't get the clumping or balling that's often a problem with steel fibers” noted project manager Richard McGuinness



STRUX® 90/40 macro fibers replace steel fibers, welded wire mesh and light rebar. Three-dimensional dispersion of fibers ensures proper placement of reinforcement.

PROJECT CREDITS:

Concrete Supplier: J.G. MacLellan Concrete, Wakefield, MA

Contractor: Jackson Construction, Canton, MA

Specifier: LeMessurier Consultants, Cambridge, MA

of Jackson Construction. “With STRUX, we got the strength we needed and a smooth power-troweled finish.”

The end result was a strong, durable and smooth floor that should stand the test of time—a project that got high marks from everyone involved.

U.S. Patent Nos.: 6,569,525; 6,569,526; 6,758,897

www.graceconstruction.com

North America Customer Service: 1-877-4AD-MIX1 (1-877-423-6491)

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