

UPDATE

ROOFING/COMMERCIAL WALLS

If You Build It, the Students Will Come: The School of Dreams in the Hoosier State

It seems that only in the movies would one find a baseball field located in a cornfield. However, just outside of Indianapolis on a 104-acre site surrounded by cornfields,

school. "When it comes to a school project, we want to design around dependable and reliable products that we are comfortable with and have proven performance."

manager of W.R. Kelso, said that **STYROFOAM DECKMATE Plus** made the job easier.

STYROFOAM DECKMATE Plus brand insulation is the first extruded polystyrene that meets the requirements established by Underwriters Laboratories for direct application on metal decks.

"It makes my job easier because its superior durability allows for faster installation rates and it doesn't break apart when handled roughly," Phelps said. "It's a more durable product so you don't have to replace broken boards. It holds up after the fact, especially for roofs with a lot of foot traffic and units."

The two layers of 1½" **STYROFOAM DECKMATE Plus** brand insulation were applied directly to sloped and flat metal roof decks with an EPDM membrane. Project Manager Doug McCoy of Gibraltar Design said that tapered insulation applied to a flat roof offers the benefits of better drainage and added insulation.

Experienced with **STYROFOAM** brand insulation and its installation, Phelps said he prefers it to polyisocyanurate foam, molded bead polystyrene and other insulation products. "It's a superior product – a cadillac product and a cadillac building," he said.

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The \$65-million high school will accommodate 1,800 students while core facilities are expandable to meet an enrollment of 2,500 students, if needed.

there is not one, but five baseball fields, one varsity football field, four additional practice fields, two soccer fields and 12 tennis courts.

The \$65-million Avon High School in Avon, Ind., is a school like none other due to its size, facilities and design. A three-year project, construction began in September 1996. Specialists in educational facilities, Fanning/Howey Associates, Inc. was selected as the architectural and engineering firm for the school. Fanning/Howey has designed hundreds of K-12 facilities, more than any other architecture firm in the United States. Fanning/Howey recommended and specified rigid, extruded insulation, listing **STYROFOAM*** brand insulation as an approved product.

"We selected the **STYROFOAM** brand insulation based on our experience and comfort with the product," said Mike Schipp, project architect for the Avon

The school insulation included **STYROFOAM** brand **Square Edge** insulation on the foundation perimeter and sections of the roof, **STYROFOAM DECKMATE*** **Plus** brand insulation also on the roof, and **STYROFOAM CAVITYMATE*** **Ultra** brand insulation in cavity walls. **STYROFOAM** brand insulation products, the CFC-free** rigid foam insulation manufactured exclusively by The Dow Chemical Company, resists moisture penetration and maintains its 5.0 per inch R-value year after year due to its dense, closed-cell structure.

Making the Grade

On a project this size, one challenge that both architects and contractors faced was the complexity of the roofing systems. W.R. Kelso Co. Inc. installed nine different roofing systems totaling over 225,000 square feet of surface. Although the roofing systems were complex, Ron Phelps, project



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Cavity Walls 101

The Avon Community School Corporation, the owner of the school, selected **STYROFOAM CAVITYMATE Ultra** brand insulation, the latest addition to the line of cavity wall insulation products from Dow.

"Although the base bid spec'd **CAVITYMATE** with a thickness of 2", we had an alternative bid of **CAVITYMATE Ultra** with a 1½" thickness, adding to air space while not losing R-value," Schipp said. "In fact, the owner paid more for the **Ultra**, getting a greater R-value and a ¾" air space for better drainage and ventilation."

With an R-value of 5.6 per inch and a 30-year thermal performance warranty, **STYROFOAM CAVITYMATE Ultra** brand insulation has an R-value 12 percent higher than other **STYROFOAM** products while maintaining all the desirable characteristics of the extruded polystyrene.

Ed Payton, job foreman of masonry from E.A. Wilhelm Construction Co., Inc., agreed that **STYROFOAM** brand insulation is used frequently because it is easy to handle.

Installed directly between masonry wall ties on 16" centers, the insulation's 16" width eliminates the need to cut or snap boards. The pre-cut 16" width also ensures a quality job because the boards fit tightly together at the seams.

"This is the first time we are using the **Ultra** product and the 16" high boards, making it easier to use adhesives for joints, wire anchors and brick ties," Payton said, who has been in the masonry business for about 34 years. "I would say

95 percent of the jobs that I've worked on have used a Dow product."

Innovative School Features

With more than 50 truckloads of **STYROFOAM** brand insulation, Avon High School has proven to be a unique project. The new school consists of 91 teaching stations or classrooms. The academic areas will



***STYROFOAM CAVITYMATE Ultra** brand insulation is installed directly between masonry wall ties, eliminating the need to cut or snap boards and ensuring a tight fit at the seams.*

accommodate 1,800 students while core facilities are expandable to meet an enrollment of 2,500 students.

Some of the features include a 400-foot corridor, a 900-seat auditorium, a primary gymnasium with a three-lane running track on the balcony, an auxiliary gymnasium, a swimming pool, 49 display cases, four darkrooms, eight cafeteria serving lines, an outdoor food court for 200 people, six academic houses with 12 teaching teams and enough locker benches to stretch a quarter of a mile when lined up.



*Two layers of 1½" **STYROFOAM DECKMATE Plus** brand insulation are applied directly to sloped and flat metal roof decks.*

Ahead of the Insulation Class

Upon completion, Avon students will probably neither know the construction challenges nor the tremendous amount of **STYROFOAM** brand insulation used throughout the school to protect them from the cold, Midwest winters. However, Phelps said he knows that in the end, the big reward will be seeing the students in the school he helped make a reality in a cornfield in Hoosier country.

For more information on **STYROFOAM** brand insulation products, contact your Dow sales representative or write to The Dow Chemical Company, P.O. Box 1206, Midland, MI 48674; or call 1-800-441-4369. For information on **STYROFOAM DECKMATE** and **DECKMATE Plus** brand insulation, request Form No. 179-5451. For information on the line of **STYROFOAM CAVITYMATE** brand insulations, request Form No. 179-4285. To obtain the Sweet's brochure of **STYROFOAM** brand products, request Form No. 179-4298.



**STYROFOAM brand products are manufactured with HCFC blowing agents which have ozone depletion potentials more than 90 percent less than standard CFC blowing agents.

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