School of HARD KNOCKS

Classroom walls take a beating, and a new vinyl-clad wallboard passed the test

Georgetown, OH school officials helped hold down construction costs for their new 88,000-square-foot junior/senior high school by selecting vinyl-clad wall panels

When Georgetown, OH school officials began planning a new junior/senior high school for their southern Ohio farming community, they were particularly interested in construction materials that were hard to mistreat and easy to maintain.

“Our students are extremely well behaved and no harder on school surfaces than other teenagers,” stated Georgetown Principal Larry Grooms, “but anytime you place kids in an enclosed area you can expect things to get knocked around.”

This is especially true of school corridors and classroom walls which are constantly exposed to marks, dirt and dents. Traditional choices for these special problem areas have been concrete block, brick or plaster.

Architects hired by the school district decided to take a closer look at a new and cost-effective heavy-duty gypsum wallboard laminated with rigid 22-mil textured vinyl. These “Armor Wall” panels, manufactured by Gold Bond Products of Charlotte, NC, had previously been used for service areas such as commercial kitchens, hospitals and light manufacturing facilities.

Would the 4 x 10-ft. panels stand up to 550 junior and senior high school students? Georgetown school board members wanted to make certain.

A 4 x 4-ft. structural model of the vinyl-laminated wallboard over steel studs was delivered by Gold Bond for hands-on evaluation by school officials. According to school superintendent Bob Taylor, “We were skeptical at first. As an alternative to painted block, there was no doubt of the wallboard’s superior design appeal. Our overriding concern was durability, and that question was answered the next day when our own maintenance crew put the structural model to the test.”

The sample wall was moved down
Before selecting Armor Wall, the school district subjected the heavy-duty, rigid 22-mil vinyl faced wall panels to a battery of tests, including kicks, scratches, grime, inks and cosmetics.

The Georgetown Board of Education quickly approved integrating the vinyl-clad panels into all classrooms, as well
as above student lockers located in two corridors leading from the school’s central core. Project architects also favored the material based on life cycle cost analysis, including first cost, maintenance cost, durability, energy efficiency and sound transmission from room to room.

Final plans for the 88,000-sq. ft., single-story facility called for exterior face brick backed by an inside finishing system featuring both painted block and champagne-colored Armor Wall over metal studs. Project estimators calculated masonry construction at $5.68 per square foot and Armor Wall/metal stud partitions at $4.13 per square foot of wall area. More than 40,000 square feet of Armor Wall with trim components was delivered to the Georgetown construction site in early 1987 by Drywall Distribution Center of Cincinnati, OH. Bambeck and Vest Associates, Inc. (B&V), also of Cincinnati, was selected to install both metal framing and wall panels.

Traditional choices for classroom areas have been concrete block, brick or plaster.

First, B&V laid a 6-in. floor track as the foundation for the partitions. This was followed by placement of ceiling track members and 6-in., 20-gauge steel studs fastened top and bottom. With framing firmly anchored, 1/4-in. gypsum sounddeadening board was screwed to both stud sides, sandwiching three 1/2-in. sound-attenuation blankets within the wall cavities.

Next came application of the 4 x 10-ft Armor Wall panels using a clip system to secure the 5/8-in. boards without visible fasteners. The special pronged clips were driven into the vinyl-wrapped edges of each panel, then secured to metal framing with pan head screws. With adhesive applied to underlying sound-deadening board, clips on succeeding panels slipped snugly under previously attached panels to form tight, square-edged joints. Vinyl floor molding and prefinished inside/outside corner pieces completed the installation.

As expected, more than 500 Georgetown junior and senior high students
Installed in Georgetown’s classrooms and corridors, Armor Wall’s heat duty, 22-mil vinyl surface was touted for its durability in high-traffic areas.

Superintendent Taylor is also pleased with the installation and has entertained visitors from three other Ohio communities who now plan to forego traditional masonry block in their facilities. “This new vinyl-laminated wallboard has performed well for us at Georgetown and freed up dollars for other wanted items, such as terrazzo floors and higher quality windows.

Specifying only abuse-resistant, yet cost-effective, building materials is a path being followed by more and more school boards today. Faced with tight new construction or renovation budgets, we’re glad to get more school for the dollar.”