



Brick or block: The heat is on!

The weather may be getting cooler, but the competition is heating up for SPEC MIX®'s two big masonry competitions: SPEC MIX Bricklayer 500sm and Fastest Trowel on the Block. Regional contests in the past months have revealed a lot of talent, so start sharpening up those trowels. Yeah, it's only September, but registration starts soon. Keep an eye on the Trowel Tales, *Masonry Construction* and *Masonry* magazines for more information. Here's a preview of the upcoming national SPEC MIX Bricklayer 500sm and Fastest Trowel on the Block contests.

SPEC MIX Bricklayer 500sm

The second annual SPEC MIX Bricklayer 500 is scheduled for February 18 at the World of Concrete/World of Masonry in Orlando, Fla. Last year's winner finished with 539 brick, but just this past June at the Chicago area regional competition, Mike Boll upped the bar by laying 714 brick in one hour. Boll's amazing feat won him a spot at the national contest, so he'll be the one to watch — or to beat, if you're up for the challenge. But more regional competitions are coming up, so the heat could notch up even more.

To make the competition better, some changes were introduced to the SPEC MIX Bricklayer 500. Instead of a team of two tenders and a mason, the team consists of one tender and a mason. Also, the height of the starting course has increased by one standard eight-inch CMU to ease back strain.

Fastest Trowel on the Block

The older brother to the SPEC MIX Bricklayer 500 returns on March 24 at the MCAA Showcase in Las Vegas, Nev. Hosted by the MCAA, this blazing 20-minute competition features some of the best masons across the nation. With state competitions in Iowa, California, Arizona and Florida, you can expect an intense contest.



Masons compete in the inaugural SPEC MIX Bricklayer 500sm competition in Las Vegas, Nev. Winning mason Wayne Phipps of Mourer Masonry Inc., Batesville, Ark., finished with 539 bricks.



Rex Allen, of Cunningham Masonry, Green Grove Springs, Fla., races against the clock at the 2003 Fastest Trowel on the Block. Allen showed amazing skill and speed and won the competition.

Alternative mortar materials gaining acceptance across building industry

BY DARBY MEADOWCROFT, PENINSULA PRODUCTS, INC.

While proprietary alternative mortar materials (AMMs) are increasingly being used in masonry mortars, the purpose and acceptance of AMMs among designers, specifiers, architects and manufacturers is often in question. However, AMMs have a long history of successful use and are subject to stringent building code standards.

Typically, AMMs are used as a component of masonry or mortar cement, or in lieu of or in addition to ASTM C 270 prescribed cementitious materials. AMMs are used because they are cost effective, user friendly, improve the mortar's workability or provide or enhance desired characteristics of the mortar. When used as a component of a masonry cement (ASTM C 91) or mortar cement (ASTM C 1329), by definition, AMMs are acceptable for use under ASTM standards as long as the masonry or mortar cement meets its respective performance criteria. When used in lieu of an ASTM C 270 prescribed cementitious material, there is currently no mention or guidance on the use of AMMs in ASTM C 270.

However, United States building codes do recognize the use of AMMs through a nonprofit, public-benefit corporation that exists to fill the void left by the ASTM. The ICC Evaluation Service, Inc. (ICC-ES) is the principal source of technical information on building codes, technology and products that fall outside of ASTM standards. One of the tasks of the ICC-ES is to evaluate AMMs in order to determine their suitability for use in construction and their compliance with building code requirements. The culmination of the evaluation process is the issuance of a report on code compliance. These code compliance reports are used by designers, specifiers, architects, manufacturers and contractors to demonstrate to building officials and other interested parties that AMMs are suitable for construction and comply with building codes.

Interestingly, as a result of marketplace acceptance of AMMs, the ASTM has created a task group that is in the process of developing an ASTM standard for AMMs. When an AMM is used as an admixture in addition to ASTM C 270 prescribed cementitious material, ASTM C

270 currently states that the AMM may be used if specified. ASTM C 1384 is a performance specification that pertains to admixtures that will most likely be cross-referenced to ASTM C 270. A proposed modification to ASTM C 1384 will allow admixtures to be used if the admixed mortar demonstrates that it meets the property requirements of ASTM C 270.

Easy-Spred™ is an example of an AMM that is familiar to and used by many mason contractors and manufacturers. Easy-Spred™ is currently used as a component of masonry and mortar cement by manufacturers of pre-blended mortars, or as a full or partial lime replacement in conjunction with Portland cement and masonry sand or as an admixture to enhance the performance of other cementitious materials. Easy-Spred™ is used because it:

- Is cost effective.
- Improves workability, cohesiveness.
- Extends mortar's board-life.
- Reduces shrinkage cracking of mortar joints.
- Enhances tooling of mortar joints.
- Reduces efflorescence.
- Reduces segregation and improves pumpability.
- Improves uniformity and effectiveness of pigments in cement-based systems.

As a lime replacement, Easy-Spred™ is recognized by the ICC-ES as an acceptable alternate to lime in masonry mortars. As an admixture, it has demonstrated through numerous independent laboratory tests that it meets the



requirements of ASTM C 1384. For further information on Easy-Spred™, please visit the product's web site at www.easyspred.com or contact Peninsula Products, Inc. at (941) 792-8623.

PMI sees bright future with SPEC MIX®

Pre-Mix Industries (PMI) first purchased a SPEC MIX® license for Central Florida in 1991, and since has added three more licenses, encompassing Eastern Pennsylvania and Southern New Jersey down to Southern North Carolina. Their SPEC MIX® producing plants are located in Berlin, NJ, Clinton, Md., Chesapeake, Va. and Lakeland, Fla.

The SPEC MIX® system has allowed them to participate in high profile jobs like the Philadelphia Phillies and Eagles stadiums, the Orlando Florida Convention Center, the National Indian Museum in Washington, D.C., and the Disney Cruise Island in the Bahamas. A well-trained sales force has grown their bulk sales to just under 100,000 units per year.

PMI continually looks for ways to improve the SPEC MIX experience for their customers. For example, their customers expressed a desire to eliminate the deposits on bulk bags and the expense to administer them. The solution was to transition to one-use bags, and both PMI and their customers have been pleased with the results.

Whether their customers need the utility of a ten bagger silo, the mobility of a LOAD N GO or the convenience of SPEC MIX® products in 80 lb. bags, they can get them from PMI.

PMI views SPEC MIX® as an important growth vehicle for them. Their customers acknowledge the benefits and value of the system. Their big challenge is growing productive capacities to stay ahead of market demand.

It also has been challenging converting old methods to new concepts, but through the efforts of their dedicated team and technical support from Stan Harwell, SPEC MIX® Eastern Regional Manager, PMI has created a ground swell that is growing exponentially.

The SPEC MIX® future is bright at Pre-Mix Industries.

Erroneous testing of masonry grout

BY MARK LUKKARILA, TECHNICAL SERVICES MANAGER

A good deal of time is spent each year having to respond to statements like, “The samples did not meet the specified strength.” Prior to the response in writing, the cause of the lower than anticipated strengths needs to be identified. This in itself can be very time consuming and costly.

Much like mortar, grout can be specified by proportion (Table 1 in ASTM C 476) or by compressive strength. Meeting the specified strength is typically not a problem with properly proportioned grout mixtures and proper testing protocol.

Compressive strength is the criteria typically used for determining the acceptability of the grout mixture. There are many reasons why the strength of a grout comes back as “failed to meet the specified strength.” Some of the more common reasons for lower than anticipated strengths include:

- High air content
- High water-to-cementitious ratio
- Frozen grout sample
- Wrong sampling and testing protocol

Unlike ordinary concrete, most grouts are designed with high water contents for workability and to compensate for the mix water that will be absorbed by the concrete masonry units. This is why ASTM C 1019 Standard Test Method for Sampling and Testing Grout must be used as the standard test procedure. ASTM C 1019 specifies that molds be constructed of “masonry units having the same absorption and moisture content characteristics as those being used in the construction.” Nonabsorbent cylinder or cube molds should not be used for casting grout specimens for compressive strength. The use of nonabsorbent molds can result in reported strengths that significantly lower than the actual in-place grout. This is due mainly to the higher water-to-cementitious ratio in the specimens than the in-place grout.

Using the right test procedure and conducting the tests properly are a crucial part of any project. If you are unsure about which test procedures are applicable, contact a SPEC MIX®, Inc. representative.

Young mason using skills to benefit community

David Sandoval of Harlingen, Texas, represented Texas in the national masonry contest held this past June in Kansas City, Mo., as part of the SkillsUSA-VICA National Championships. And, he did it as a high school sophomore!

Victor Santillan, Sandoval's instructor at Harlingen High School is proud of his student. "David started in my introductory nine-week class. By year's end, he had won first place in our state masonry contest, and I was on my way back to Kansas City."

Santillan's students have participated in the national masonry competition seven of the past 12 years.

Like many young masons, Sandoval is energetic and hard working. His hard work extends to his church where he participates on weekends in a program called Quick Build. He and other church members travel the state volunteering their labors on church construction and maintenance projects. He has already used his newly developed



David Sandoval volunteers to work on church construction and maintenance projects in a program called Quick Build.

masonry skills to build or rebuild three churches.

It's not uncommon on these projects to hear a comment like, "He's the youngest bricklayer I've ever seen."

Looking ahead, Sandoval, just 16, is excited about his first high school football season and looks forward to eventually continuing his education at the University of Texas at Austin.

School integrates masonry education with new building program

Thanks to the students in Bricklaying and Masonry, a one-year technical diploma program at Southwest Wisconsin Technical College (Southwest Tech), the school's new student residence building has a brick facades.

"We preferred brick all along," said Ellen Leuck, co-director of the Southwest Wisconsin Technical College Foundation, Inc., the on-campus organization that contracted to have the student housing constructed. "We knew it would be more attractive, more durable and easier to maintain than other exterior options. Because of the cost differential, however, we were going to have to go with vinyl siding."

Then up stepped Don Borchert, bricklaying and masonry instructor at Southwest Tech in Fennimore, Wisc. He suggested that his students could team up to lay the 33,000 bricks that the project would require. And, 13 did. To further the incentive, Borchert was able to secure a sig-



Dan Mau, a student at Southwest Wisconsin Technical College, from South Wayne, Wis., contributes his time and talents to the school's new student residence building.

nificant discount on brick, mortar and other needed materials. Together, the labor and materials savings closed the gap on cost, enabling a brick facades to become reality.

"This has turned out to be a great opportunity for our students and our college," Borchert said. "Our best job training projects are usually significant to the school. Talk about leaving their mark. Our students this year already feel they are giving back to Southwest Tech!"

And rightly so. Borchert estimates

that upon its completion, his student workers will have invested more than 1,000 hours of work in the project.

"We've built a better, more valuable and longer-lasting building for Southwest Tech," Borchert said, "and on the same project, our students have learned so much. These kids will leave here with experience, confidence and pride."

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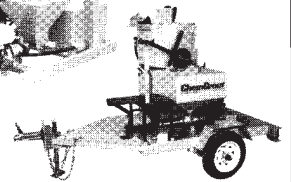
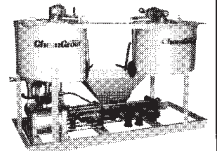
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Sonoma, CA

Joint Fall Meeting of the Portland Cement Association

September 30-October 1
Chicago, IL

2003 Design-Build Expo

October 8-9
Orlando, FL

WEFTEC 2003 Annual Conference & Expo

October 11-15
Los Angeles, CA

Arizona Masonry Expo & Fastest Trowel on the Block

October 18
Phoenix, AZ

BAC/IMI International Apprenticeship Contest

October 18
Washington, DC

ASTM E6 (Building Performance) Committee Meeting

October 19-22
Tampa, FL

ASLA Annual Meeting and Expo

October 30-November 2
New Orleans, LA

4th Annual Brick Industry Marketing Forum

December 4-5
Ponte Verda Beach, FL

World of Concrete/World of Masonry

February 17-20
Orlando, FL

SPEC MIX Bricklayer 500sm

February 18
Orlando, FL

MCAA Showcase

March 21-25
Las Vegas, NV

Fastest Trowel on the Block

March 24
Las Vegas, NV

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