



Proven protection
for moisture control
in masonry construction

ALDER CREEK MIDDLE SCHOOL

DRY-BLOCK[®]

INTEGRAL MOISTURE CONTROL

How Does It Work?

The DRY-BLOCK® system has been successfully used in thousands of concrete masonry structures to provide unsurpassed moisture control.

The DRY-BLOCK® system is a widely specified, integral water repellent system that addresses moisture penetration of CMU (concrete masonry units) and mortar. The system consists of two separate admixtures: DRY-BLOCK® block admixture is mixed throughout the concrete during manufacture of the CMU, and DRY-BLOCK® mortar admixture is added to the mortar. During the curing process, the admixtures within the CMU and mortar become an integral part of the cement matrix. They become locked into the CMU and mortar, providing long lasting resistance to water.

Because the admixtures are present throughout the CMU and mortar, any water that comes in contact with the exterior of the wall system is prevented from wicking through the CMU and mortar. While the DRY-BLOCK® system prevents the wicking of water through the CMU and mortar, it still allows the wall system to “breathe”. In addition, these unique admixtures minimize the migration of moisture that can carry soluble salts to the surface and cause unsightly efflorescence.

The DRY-BLOCK® system is one part of a comprehensive moisture protection system for concrete masonry walls.

Other elements include:

- Drainage within the core or cavity area
- Installed flashing and weeps
- Properly spaced control joints
- Tooled mortar joints

Advantages

DRY-BLOCK® block admixture helps the mix flow easily into the CMU mold during production to provide a more uniform surface finish with greater resistance to moisture penetration. This unique admixture improves workability and hardened mortar properties, including bond strength.

Better Protection at Lower Life Cycle Costs

The DRY-BLOCK® system is less expensive than surface-applied sealers, and is complete when the wall is built. Surface sealers work only to the depth that they can penetrate. If water passes through cracks in the wall surface, moisture may wick through to the building interior to cause damage. The DRY-BLOCK® system works differently. It is present throughout the entire CMU and mortar joint, providing full-depth protection. Unlike sealers, the DRY-BLOCK® system requires no reapplication and is virtually maintenance-free.



DRY-BLOCK® System and Penetrating Sealers

The DRY-BLOCK® block and mortar admixtures have successfully performed as a standalone system for years. However, if a “belt and suspenders” system is desired, then a field-applied, VOC-compliant, water-based penetrating water-repellent sealer can also be used in conjunction with the DRY-BLOCK® system to further protect wall exteriors.

Laboratory Tested

The National Concrete Masonry Association's Research and Development Laboratory and other independent testing laboratories have evaluated the DRY-BLOCK® system for compliance with applicable standards for CMU, masonry mortars and masonry assemblages. In testing, the DRY-BLOCK® system achieved a Class E rating when evaluated for wind-driven rain resistance, using ASTM E 514 with the test extended to 72 hours, and using the rating criteria in ASTM E 514-74.



Proven Protection

The DRY-BLOCK® system has been used in buildings containing many nationally known companies, including:

- 7 Eleven
- Barnes & Noble
- Builders Square
- Burger King
- Costco
- Home Depot
- Lowe's
- Macy's
- McDonald's
- Nevada Bob's
- Pep Boys
- Price Chopper
- Hannaford
- Shop Rite
- Showcase Cinemas
- Target
- Wal-Mart
- Whole Foods



The Qualified DRY-BLOCK® Producers Program

Making a water-repellent CMU takes more than simply using an admixture. Every plant has different aggregates, mix designs and manufacturing conditions. It is not prudent to expect one admixture dosage rate to work under all of these variables. Our qualified DRY-BLOCK® producers help ensure that they can produce a quality, water-repellent CMU when using the DRY-BLOCK® system.

Becoming a qualified DRY-BLOCK® producer is an extensive process that requires commitment on the part of the CMU manufacturer and GCP Applied Technologies. We work with each producer, evaluating their mix designs and manufacturing processes prior to testing. Production-sized batches are then produced with varying admixture dosage rates to determine the optimum addition rate. CMU from the production trials are then put through additional testing at an independent laboratory using industry-accepted test methods to ensure they meet GCP's

stringent performance criteria. Certificates of qualification are issued to each plant successfully completing the process. Copies of the current qualification certificate should be requested when accepting a bid on a DRY-BLOCK® system project. Qualification is reviewed annually and renewed when recently produced CMUs successfully meet GCP's performance criteria.

The DRY-BLOCK® System as Damp-proofing

Specifying the DRY-BLOCK® system in place of traditional damp-proofing materials in cavity wall backup applications provides reliable moisture protection, labor savings and a cost-efficient installed wall. By using the DRY-BLOCK® system in the CMU and mortar of the backup wall, the moisture protection system is in place as the wall is built. There is no additional labor cost or job delays for an additional trade to complete the project. This way, the proven performance of the DRY-BLOCK® system is built throughout the CMU and mortar.

Talk to an expert about using the DRY-BLOCK® system on your next project.

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