INFINISEAL™ DB Sealer

Clear Non-film-forming Water-Repellent Sealer for DRY-BLOCK® System

Short-form Specification insert for inclusion in Section 07 19 00 WATER REPELLENTS

[Specifier: INFINISEAL DB Sealer, specified in this short-form specification, is a water-based, clear, penetrating water-repellent sealer that provides maximum protection when field applied to structures utilizing GCP Applied Technologies' DRY-BLOCK System without altering the appearance of the masonry.

The DRY-BLOCK System is comprised of DRY-BLOCK Mortar Admixture, which is added to the mortar and DRY-BLOCK Block Admixture, which is mixed throughout the low slump concrete during the manufacture of the CMU by a Qualified DRY-BLOCK Producer. The admixtures when used together provide effective water repellency in typical masonry construction. To complement the DRY-BLOCK admixtures and to provide maximum protection to the masonry wall structure, field apply INFINISEAL DB Sealer, a water-based, clear, penetrating water-repellent sealer.

In addition to this short-form specification for the water-repellent sealer, the short-form specification for GCP Applied Technologies' integral water-repellent CMU admixture, DRY-BLOCK Block Admixture, must be incorporated into your project specification in Section 04 20 00 UNIT MASONRY. In addition, the short-form specification for GCP Applied Technologies' integral water-repellent mortar admixture, DRY-BLOCK Mortar Admixture, must be incorporated into your project mortar specification in Section 04 20 00 UNIT MASONRY. You may also elect to use Section 04 05 13 MASONRY MORTARING or Section 04 05 00 COMMON WORK RESULTS FOR MASONRY for mortar materials. Both admixtures are required in your project specifications to achieve a water-repellent masonry wall.

It is important to understand that INFINISEAL DB Sealer and the DRY-BLOCK System greatly enhance the water-resistant properties of the masonry, but they should not be considered a substitute for good design practices and quality construction procedures (workmanship). Proper flashing details and control joint specifications should also be included in your project specifications. The specification items below directly address INFINISEAL DB and DRY-BLOCK and are important to the water penetration performance of the wall. They should be incorporated into your specifications along with other important items such as those outlined in TMS 402/602 Building Code Requirements and Specification for Masonry Structures.]

[Specifier: Incorporate the following information in Part 1 – GENERAL]

PART 1 - GENERAL

1.1 SUMMARY

A. Section includes penetrating water-repellent sealer for concrete unit masonry.

[Specifier: If choosing to retain optional "Related Sections" paragraph below, edit to correspond to sections used in Project.]

B. Related Sections:
   1. Section 04 05 00 COMMON WORK RESULTS FOR MASONRY for water-repellent admixture for masonry mortar.
   2. Section 04 05 13 MASONRY MORTARING for water-repellent admixture for masonry mortar.
   3. Section 04 20 00 UNIT MASONRY for water-repellent admixture for concrete masonry units [and masonry mortar].

[Specifier: Optional "References" Article below is included here for information purposes.]

1.2 REFERENCES

A. ASTM E514 Standard Test method for Water Penetration and Leakage through Masonry
B. National Concrete Masonry Association (NCMA): NCMA TEK 08-04A Cleaning Concrete Masonry

[Specifier: If using this guide specification as a closed proprietary specification written around GCP Applied Technologies' DRY-BLOCK, consider retaining reference below:]

C. GCP Technical Bulletin TB-13: Cleaning Masonry Containing DRY-BLOCK

1.3 SUBMITTALS

A. Product Data: Submit for specified products.

B. Certificate: From manufacturer and installer, indicating that water repellent treatment is compatible with CMU construction utilizing integral water-repellent admixture.

C. Test and Evaluation Reports: Prepared by independent laboratory indicating compliance with performance requirements for water-repellent treatment.

1.4 QUALITY ASSURANCE

[Specifier: Sample panel is recommended for Architect and Owner approval of finished masonry appearance.]

A. Sample Panel: Construct sample masonry panel to verify compatibility of materials and effects of materials and construction procedures on final appearance of masonry work. Incorporate range of CMU textures and mortar colors permissible.

1. Construct panel using jobsite materials, including specified water-repellent CMU, mortar containing water-repellent mortar admixture, and application of penetrating water repellent treatment.
2. Perform specified construction procedures on sample panel, including cleaning of one-half of panel and joint sealants.
3. Construct additional sample panels as necessary to obtain Architect approval.
4. Retain approved sample panel during construction as standard for judging completed masonry work.
5. Acceptance of sample panel does not constitute approval of deviations from materials contained in sample panel, unless such deviations are specifically approved in writing by the Architect.

[Specifier: The pre-installation conference can help in enforcing the requirements for water-repellency, proper flashing techniques, and the use of weeps; it is often utilized on larger scale projects. Coordinate with Division 01 Section "Project Management and Coordination."]

B. Preinstallation Conference: Prior to commencing above-grade masonry work, schedule pre-installation conference at the jobsite. Attendees shall include Contractor, masonry installer, water repellent applicator, mortar admixture manufacturer's representative, and related subcontractors. Include as agenda items the following:

1. Test application of water-repellent sealer to mock-up or field samples.
2. Application of water-repellent sealer to masonry surfaces.

[Specifier: Incorporate the following in Part 2 – PRODUCTS]

PART 2 - PRODUCTS

2.1 PENETRATING WATER REPELLENT

A. Penetrating Water-Repellent: Provide surface-applied clear repellent sealer consisting of water-based blend of silanes and siloxanes, formulated by manufacturer to repel water, minimize efflorescence and moisture-related contaminants, and compatible with integral water-repellent CMU construction.

[Specifier: Delete the following subparagraph if proprietary specification method is not allowed.]

1. Product: Provide the following: GCP Applied Technologies, (800) 558-7066, **www.gcpat.com**, INFINISEAL™ DB Sealer.

2.2 PERFORMANCE REQUIREMENTS

A. Penetrating Water-Repellent Sealer: Provide water repellent with the following characteristics:

[Specifier: See * footnote following section text for explanation.]

1. Water Permeance of Masonry, ASTM E514: Capable of achieving a Class E Rating when evaluated using ASTM E514 with the test extended to 72 hours, using the rating criteria specified in ASTM E514-74.
2. Solids/Active Content: Not less than 12 percent by weight.
3. VOC Content: EPA Method 24: Not more than 320 g/L.

[Specifier: Incorporate the following in Part 3 – Execution]

PART 3 - EXECUTION

3.1 EXAMINATION AND PREPARATION

A. Substrate Condition: Verify surface of CMU to be treated is clean and surface dry, free of chemical cleaners, efflorescence, dirt, oils, mortar smears, and other surface contaminants, and complies with water-repellent manufacturer's written requirements.

1. Verify joint sealants are installed and adequately cured.

B. Preparation:
1. Repoint loose, cracked, or disintegrated mortar a minimum of 7 days prior to applying water-repellent.
2. Clean substrate of substances that could impair water-repellent penetration or performance.

C. Protection: Protect areas surrounding surfaces to be treated from spillage or blow-over of water repellent. Mask aluminum and glass surfaces. Cover plant materials.

3.2 APPLICATION

A. Pre-Application Testing: Perform pre-application test to 5 by 5 ft (1.5 by 1.5 m) section of CMU wall surface to determine:

[Specifier: Typical sealer coverage rate ranges from 50 to 150 sq. ft/gal (1.2 to 3.7 sq. m/L).]

1. Proper sealer coverage rate for type of CMU being sealed. Where overall coverage rates are less than 80 sq. ft./gal (1.9 sq. m/L), use 2-coat application method.
2. Desired water-repellency properties.
3. Desired surface appearance after sealer is fully dry.

B. Spray Application:
1. Use low-pressure airless spray equipment fitted with fan tip between 0.025 and 0.035 inch (0.6 and 0.8 mm).
2. Apply at lowest pressure setting that ensures continuous spray without surge.
3. Using 3 to 4 ft. (0.9 to 1.2 m) wide swathes, start spraying from bottom of CMU wall and work to top of wall, avoiding spray atomization and applying sufficient material to saturate CMU wall with maximum 6 inch (150 mm) sealer rundown.
4. When necessary, apply second coat, wet-on-wet, at twice the coverage rate as first coat within one hour of first spray application, per pre-application testing to ensure proper surface saturation, coverage, and product performance.

C. Brush or Roller Application:
1. Use either nylon or other synthetic brushes or rollers resistant to alkalinity.
2. Apply water-repellent sealer to area to be treated, thoroughly saturating CMU and avoiding excessive overlapping.

3.3 CLEANING

A. Cleaning: Clean adjacent surfaces subjected to overspray immediately following application.
   1. Clean surfaces using warm soapy water.
   2. Clean remaining material using solvent products recommended by manufacturer and acceptable to manufacturer of products or finishes to be cleaned. Test concealed area prior to use.
   3. Comply with environmental laws and restrictions of authorities having jurisdiction.

END OF SECTION INSERT

*[Specifier – ASTM E514 Modification Clarification: Note that this guide specification recommends modifying the current ASTM E514 standard by extending the test period to 72 hours and applying the Rating Scale found in ASTM E514-74, an earlier version of the test method. Both versions subject test specimens to a 140 mm (5 ½ in.) per hour rainfall and a 100.6 km/hr (62.5 mph) wind. Under the 1974 version of the test method, the test period lasted for 72 hours; and the laboratory was instructed to rate the wall on an objective Rating Scale in one of five categories from L" (indicating leakage), to "E" (for Excellent). Under the current version of the ASTM E514 the minimum test period is only 4 hours; and the laboratory is instructed only to record their observations on the specimen. The current version of the standard is not as demanding as the previous version and does not provide the same level of performance required by the 1974 version. If you want the kind of performance the DRY-BLOCK System can achieve for your project, do not change the wording in this guide specification, which extends the test period to 72 hours and applies the rating criteria found in ASTM E514-74 to the results.]

Visit our web site at: www.gcpat.com

GCP Applied Technologies, 62 Whittemore Avenue, Cambridge, MA 02140

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