DRY-BRICK™

Admixture for Masonry Mortar

Product Description

DRY-BRICK Mortar Admixture is formulated based on a patented technology. It is a liquid, integral water repellent admixture for masonry mortar. When DRY-BRICK Mortar Admixture is added at its recommended dosage rate, the wicking property of the mortar is dramatically reduced.

Product Advantages

- Provides water-repellent mortar
- Minimizes efflorescence at the mortar joint
- Improves workability
- Packaged for easy job site use

Product Uses

DRY-BRICK Mortar Admixture reduces the absorptiveness of the mortar, thereby reducing the likelihood of water soluble salts in the mortar being dissolved and brought to the surface as efflorescence.

Product Function

As an integral admixture, DRY-BRICK Mortar Admixture provides water repellent protection throughout the depth of the mortar joint. DRY-BRICK Mortar Admixture’s water-repellent properties will prevent the moisture from wicking through the mortar joint into the building’s interior. Likewise, it will not be wicked back to the exterior carrying soluble salts that can cause efflorescence at the joints on the wall exterior.

Application Information

DRY-BRICK Mortar Admixture contains workability enhancers to improve ease of placement and to use the mix water more efficiently. DRY-BRICK Mortar Admixture may reduce the total amount of water required to achieve a given level of workability.

Addition Rates:

For optimum performance, DRY-BRICK Mortar Admixture should be added at 16 – 24 oz/ 3 ft$^3$ (5.5 – 8.5 L/m$^3$) of mortar. In no case should it be used at less than 16 oz/ 3 ft$^3$ (5.5 L/m$^3$) of mortar. To achieve this dosage range, the recommended addition is 1qt. (1 L) of DRY-BRICK Mortar Admixture per bag of Portland cement in cement/lime mortars or 0.5 qt. (0.5 L) per bag of masonry or mortar cement. This will typically assure that the dosage will be in the range of 16 – 24 oz/3 ft$^3$ (5.5 – 8.5 L/m$^3$) of mortar. For bulk mortar systems add 16 oz (0.5 L) for every 3 ft$^3$ of mortar produced.
Mixing Procedure:

SHAKE WELL BEFORE USE. DRY-BRICK Mortar Admixture should be added with the mix water prior to adding the cement and sand. It is important to reduce the initial water used in the mortar.

Recommended mixing sequence:

1. Add 2/3 of the water to the mixer
2. Add DRY-BRICK Mortar Admixture to the mixer
3. Add sand to the mixer
4. Add cement and lime to the mixer
5. Add additional water as necessary
6. Mix a minimum of 5 additional minutes after all materials have been added to the mixer

*Note:* Do not dilute DRY-BRICK Mortar Admixture with water; for example, in a 55 gallon drum, and use as "mixing water." This will render the admixture ineffective.

Trial Batches:

DRY-BRICK Mortar Admixture is compatible with other GCP Mortar Admixtures. Trial batches are recommended using job site materials and expected job site climatic conditions to determine compatibility of materials and the necessary adjustments to the mix design for actual addition rates, workability, color and physical properties. All admixtures must be added to the mix separately.

When pigments are used, trial batches are strongly recommended to ensure the desired color is developed.

Design Considerations

Masonry walls leak for several reason and the absorptiveness of the mortar joint is one of them. The use of DRY-BRICK Mortar Admixture addresses the important issue of minimizing water penetration through the mortar joints.

Mortar Joints:

The water-repellency of mortar joints is a function of:

1. The ability of the mortar to resist water penetration.
2. The geometry of the mortar joint.

The use of DRY-BRICK Mortar Admixture and proper tooling increases the water tightness of the mortar joint and provides resistance to water penetration. A well-tooled concave joint profile has been shown to provide the greatest resistance to water penetration. The mortar should be tooled when thumb-print hard to a concave or Vee profile whenever DRY-BRICK Mortar Admixture is used for exterior applications. Raked, Flush, Extruded, Struck, Beaded, Weathered or other joint profiles have poor water resistance and are not recommended for exterior applications.
DRY-BRICK Mortar Admixture is only one part of a moisture management system for masonry walls. Other elements include:

- Proper drainage within the cavity area
- Properly installed flashing and weeps
- Properly spaced control joints
- Properly tooled mortar joints

Information on other design considerations for masonry wall systems, such as flashing, weeps, reinforcing and drainable in-core insulation can be obtained from GCP Applied Technologies, the NCMA (National Concrete Masonry Association) and the BIA (Brick Industry Association).

Cleaning:

All excess mortar containing DRY-BRICK Mortar Admixture should be removed from the face of the masonry units as soon as possible. This is important, since standard methods or removing hardened mortar such as strong acids, overaggressive sandblasting and high pressure cleaning are harmful to the masonry units and the mortar joints and are not recommended.

Precautions:

DRY-BRICK Mortar Admixture is not a substitute for good masonry practices such as proper curing, tooling and covering the wall at the end of each work session. DRY-BRICK Mortar Admixture will not prevent hairline cracking due to premature tooling.

Proper techniques for protection during construction as well as proper curing techniques can be found in literature published by NCMA and the BIA.

DRY-BRICK Mortar Admixture provides water-repellent properties to cured mortar. If the mortar dries out before the desired properties are achieved, DRY-BRICK Mortar Admixture’s water-repellent properties will become active and subsequent hydration of the cement will be hindered.

Packaging

DRY-BRICK Mortar Admixture is supplied in cases of twelve 1 qt. (1 L) bottles and 55 gallon (208 L) drums.

Health & Safety

All precautions defined on the SDS for DRY-BRICK Mortar Admixture must be followed.

Storage

DRY-BRICK Mortar Admixture will freeze at 32 °F (0 °C). DRY-BRICK Mortar Admixture must be protected from freezing. Once frozen, it is unusable.
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