Technical Bulletin

Acme Shield® STO

DESCRIPTION

Acme Shield® STO is a liquid combination water-repellent and plasticizer used in the production of CMUs, SRWs and pavers. Designed for use during the mixing process, Acme Shield® STO reacts with the calcium salts found in cement, aggregate, and sand to provide water repellency and reduce efflorescence. At the same time it allows more water to be used without increasing slump.

BENEFITS

- · Increases cement performance
- · Allows for increased water
- Densifier
- · Excellent stability with no hazardous or toxic ingredients
- 100% active material.
- Usable without loss of effectiveness if frozen, provided preheated to and maintained at 50-55°F or higher
- Better color distribution, reduced color bleeding, and less fading of block
- · Doesn't cake or congeal when exposed to air
- Improves green strength
- Reduces cycle times
- · Improves surface texture

DIRECTIONS FOR USE

In normal weight block with proper gradation: Add 16 to 20 ounces of Acme Shield® STO per 100 pounds of cement. This will provide effective water repellency and help control efflorescence. Results may vary with different mix designs. Acme Shield® STO should also be maintained at 50-55°F or higher to assure the viscosity needed for uniform distribution throughout the mix. Adding Acme Shield® STO at lower temperatures could result in improper dispersion.

In medium weight block: Use 24 to 28 oz of Acme Shield® STO per 100 pounds of cement.

In lightweight units: Consult a Cargill representative before using Acme Shield® STO.

For use as a plasticizer in standard gray concrete masonry units (CMU): As little as 2 to 6 ounces per 100 pounds of cement can be used with minimum water repellency and efflorescence control.

Testing has determined that the dosages recommended here are the most effective for improving water repellency; however, many users have successfully controlled efflorescence with lower dosages. Normally, a half loading of Acme Shield STO in normal, medium or light weight block will control efflorescence. Users should determine proper dosage for their block through their own testing.

ADDITIONAL INFORMATION FOR USE

Any admixture, such as accelerators, anti-freeze agents, retarders, and plasticizers, etc., used in conjunction with Acme Shield STO in either block or mortar, should be cleared for use by a Cargill representative to assure compatibility.

Acme Shield STO is not designed to withstand hydrostatic pressure. Allowing water to be entrapped in block cavities of unfinished walls could result in efflorescence.

Acme Shield STO should be added to the pre-wet. If no pre-wet is provided, Acme Shield STO may be added simultaneously but not mixed with the initial or final water. In no case should Acme Shield STO come in contact with dry cement or dry colors, as "balling" may occur, resulting in uneven dispersion of Acme Shield STO throughout the batch.

SHIPPING CONTAINER

330 gallon totes and 55 gallon drums

COMPANION PRODUCTS

Acme Shield®, Accelerators, Rack Coating, Plasticizers, Form Release Agents, Acme Ultra, Acme Hardscape



