

# HYDROPHOBE<sup>®</sup> cement additive

Second generation additives for masonry cement

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## Product Description

The HYDROPHOBE<sup>®</sup> series of additives are multi-purpose, second generation additives to be interground during the manufacture of prepared masonry cement, to entrain air, impart water repellency, control setting time, extend board life and improve workability.

HYDROPHOBE<sup>®</sup> eliminates the need to add separate materials to impart this combination of properties to masonry cements.

## Properties

HYDROPHOBE<sup>®</sup> additives are emulsions of aliphatic and aromatic carboxylic acids, hydrocarbons, high molecular weight polyalcohols and complex carbohydrates.

Product specifications for the most widely used Hydrophobe<sup>®</sup> formulations are as follows:

- Appearance: Cream colored emulsion
- Specific Gravity: 0.99 - 1.06
- pH: 7.0 - 8.0
- Viscosity Range (21 °C): 100 - 800 cps

## Product Advantages

- Imparts superior water repellency and workability
- Extended board life
- Single material addition
- Tailor-made formulations
- Economical use cost

## Typical Application

The HYDROPHOBE<sup>®</sup> product line includes many tailor-made formulations designed for the economical production of high quality masonry cements and mortars as described under ASTM C 91 and ASTM C 270.

HYDROPHOBE<sup>®</sup>31 series should be used for air contents of the mortar at 17% - 21% and HYDROPHOBE<sup>®</sup>41 for air contents of 15% - 19%.

## Handling

HYDROPHOBE® should be added to the gypsum, limestone or cool clinker feed as received. HYDROPHOBE® may be diluted with water on a one-to-one basis only if adequate agitation is provided.

Suitable dispensing pumps with adjustable flow rates should be used for consistent performance of the additive.

## Addition Rates

The dosage rate of HYDROPHOBE® will depend on the type of masonry cement and the performance requirements. Typical addition rates will vary between 0.10% and 0.30% by weight of cement. The optimum dosage rate of HYDROPHOBE® must be determined during laboratory and full scale mill tests.

## Dosing Equipment

GCP cement additives should be accurately dispensed through a calibrated dosing system, suitable for the cement mill and output required.

## Specification Compliance

HYDROPHOBE® additives are formulated for production of masonry cement and mortars meeting the physical requirements of ASTM C 91 and ASTM C 270 specifications.

## Packaging

HYDROPHOBE® is supplied in 210 L (55 gal) drums, or in bulk by tanker trucks. It contains no flammable materials.

## Storage

Protect from freezing.

Drummed HYDROPHOBE® that has been stored for some time should be mixed well prior to proportioning.

Care should be taken to ensure that dust does not enter the storage tanks as it can cause emulsified HYDROPHOBE® formulations to deteriorate.

## Technical Services

Field Engineers from GCP are available to assist in laboratory and mill test evaluations of HYDROPHOBE®.

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