



Reduces efflorescence in masonry blocks



MORTAR SHIELD

Mortar Shield is a 4-in-1 admixture for sand/cement mortar

- ✓ Creates water resistant mortar.
- ✓ Reduces efflorescence.
- ✓ Improves adhesion.
- ✓ Plasticises mortar.



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MORTAR SHIELD PRODUCT INFORMATION

Manufacturer's Code: RPTADMA. Updated: 01/01/2008

Description

MORTAR SHIELD is a water repellent admixture for cement/sand mortars. It not only makes the mortar water resistant and reduces the mortar efflorescing, but also improves the adhesion of the mortar to the water repellent blocks (or Tech-Dry Blocks) and improves the workability of the mortar mixture.

Recommended Uses

MORTAR SHIELD is recommended as a water repellent admixture for cement/sand mortar designed specifically for laying water repellent concrete blocks (or Tech-Dry Blocks) made with the addition of Tech-Dry Block Emulsion. It may also be used as a water resistant admixture for other cement/sand mixtures such as cement/sand renders or concrete masonry. Some of the important features of MORTAR SHIELD include:

- » Non-toxic water-based formulation.
- » Improves workability of cement/sand mortars.
- » Increased adhesion of cement/sand mortar.
- » Reduces water penetration, efflorescence and water-borne staining.
- » Does not significantly change vapour permeability of cement/sand mortars.
- » Easy to use and cost effective.

As cement/sand mortars vary significantly, a test MUST be carried out prior to application to find out the suitability of this product for the purpose.

Use Instructions

APPLICATION

Please read the product information for the correct application and safe handling before use. For laying water-repellent blocks (or Tech-Dry Blocks), we recommend to use 1.0 litre of MORTAR SHIELD per 40kg of cement at a cement/sand ratio of 1 to 4. The maximum cement/sand ratio should not exceed 1 part cement to 5 parts sand.

Alternatively, mix 300ml of MORTAR SHIELD with 2 shovels (or approximate 12 kg) of cement and 10 shovels (or approximate 60 kg) of sand. Blend the mortar mix with enough water to create the desired consistency.

Lime and other admixtures are not recommended. However, the applicator should perform a trial on a small scale before application to check the outcome of the mortar mix if lime or other admixtures are used in the mortar mix.

CONSUMPTION RATE

The consumption of MORTAR SHIELD varies significantly. 20 litres of the mortar additive may lay approximately 1000-2000 Tech-Dry Blocks but could be out of this range significantly. For details, please contact Tech-Dry on 03-9699 8202 (all-hours).

Pilot testing and quality control

Please note that MORTAR SHIELD may cause some property change of the mortar. The mortar additive improves workability of the mortar but this may cause the mortar to become too runny to work with. It may slow the curing of the mortar, particularly in cold conditions when ambient temperature is low. These problems may be solved by altering the dosage rate of the mortar additive or by adding cement accelerator providing enough water resistant effect of the mortar is achieved and correct adhesion and workability of the mortar is retained. In order to maintain mortar strength, the correct cement/sand ratio should always be maintained and enough water should be added into the mortar mix particularly in summer when ambient temperature is high.

Due to the variation of masonry materials, it is strongly recommended that a pilot test on a small scale on site should be conducted prior to application to find out the suitability of this product for the purpose under different conditions.

For other uses, please contact Tech-Dry on 03-9699 8202 (all hours) for more information.

Typical Data

Appearance:	Pale yellow clear liquid
Solids content:	<50% by weight
Specific Gravity:	1.0 g/ml at 20°C
pH value:	8-9
Solubility in water:	Soluble in water
VOC content:	Nil
Flash point:	Not allocated

Important Note

MORTAR SHIELD is a water repellent admixture that works by depositing hydrophobic materials into the mortar matrix while not significantly blocking the capillaries or affecting the vapour permeability. It reduces water absorption by capillary action. However, it has a limited resistance to water penetration particularly under prolonged contact or hydrostatic pressure. Therefore, in some cases where the mortar is very permeable or there is extreme wind driven rain, resistance to water penetration or water-borne staining may not be adequate.

MORTAR SHIELD may precipitate solids at temperatures below 10oC, but it can re-liquefy at higher temperatures after an extended period. The product should be therefore stored at above 10oC to avoid possible precipitation. Please make sure the product is in a liquid form when adding it to mortar mixes.

Handling & Storage

MORTAR SHIELD is a non-hazardous material. However, as with all chemical products, good industrial hygiene procedures should be followed when using this product. Vapour inhalation and skin or eye contact should be avoided by wearing proper protection. Wash hands after handling. The product should be stored in closed containers in a cool dry place away from any fire or ignition sources at a temperature preferably between 10oC to 25oC. The product has a shelf life of 12 months in the sealed original container.

USE WITH SUFFICIENT VENTILATION!

KEEP OUT OF REACH OF CHILDREN!

Packaging

MORTAR SHIELD is available in 5, 20 and 200 litre plastic drums.

Disclaimer

The information given in this data sheet is based on many years of experience and is correct to the best of our knowledge. As the storage, handling and application of this material is beyond our control; we can only be responsible for the quality of our product at the time of dispatch. We reserve the right to alter certain product parameters within the spectrum of properties in order to keep abreast of technical advances. It is the responsibility of the end user to determine the suitability of this material for any particular application.