



# EARTH BONDING EMULSION

A water-based PVA emulsion specifically formulated to dust seal and strengthen the internal surfaces of earth structures



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# EARTH BONDING EMULSION INFORMATION

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## Description

EARTH BONDING EMULSION is specifically formulated to be used to dust-seal and strengthen the internal surfaces of earth structures. The product is designed to penetrate into the capillaries of earth surfaces providing the substrate with dust-sealing effects. An earth substrate treated with EARTH BONDING EMULSION also has surface abrasion resistance effect. The treatment will not significantly change the surface appearance and the vapour permeability of the earth buildings. However, a slight sheen or darkening of the surface may occur for some earth structures.

## Recommended Uses

EARTH BONDING EMULSION is recommended as a dust-sealing material for earth buildings or other porous masonry substrates. It is also used as a binder in mud brick render or sand/cement render. Some of the important features of EARTH BONDING EMULSION include:

- » Water-based non-toxic formulation.
- » Penetrates into the masonry substrate surface with no peel or blister.
- » Provides dust-sealing and surface abrasion resistant effect.
- » Does not significantly change the surface appearance and vapour permeability.
- » Improve strength, flexibility and adhesion of earth render if used in the render.
- » Easy application and cost effective.

## Use Instructions

### BEFORE APPLICATION

Please read the product information for the correct application and safe handling. The surface to be treated should be dry, firm and free from grime, oil and any previous coatings/sealers. All cracks should be properly filled and allowed to cure before application. Do not apply the product if the temperature is below 10°C. Opalescent (milky) appearance may occur if the temperature is below 10°C or if the fresh coating film is in contact with water during application and drying. If used as a binder for renders, please read the product data sheet of EARTH RENDER ADMIXTURE SYSTEMS for more information.

### APPLICATION

The EARTH BONDING EMULSION (EBE) should be stirred before use.

EBE should be diluted with clean tap water at a range of 1 part EBE to 4 parts water (or up to 8 parts water) before use. The dilution ratio should be determined by pilot testings in a small area to obtain the desired surface finish.

The above diluted emulsion should be applied by low pressure spray equipment or with a thick nap roller. The emulsion should soak into the earth surface leaving the wall with a matt wet appearance. On drying, there should be little discernible colour change. It is advisable to apply the sealer on a sample surface to ascertain the degree of binding and surface appearance achieved. If necessary, alter the dilution ratio to attain optimum results.

The number of coats depends on the permeability of the substrate. Two coats are generally recommended. However, for very permeable substrates, more coats may be required. Allow the sealer to dry before the second application.

Avoid any excessive accumulation of the sealer in certain areas which may cause an uneven finish.

Do not spray the product onto any area you do not wish to treat. If splashing occurs the product should be removed with a damp cloth before the sealer dries.

### CONSUMPTION RATE

The consumption of EARTH BONDING EMULSION varies significantly depending on the permeability of the substrate and the degree of dust-sealing effect required. For dust-sealing, it may be of the order of 1-10 m<sup>2</sup> per litre of diluted emulsion per coat or could be out of this range significantly. If used as a binder for earth renders, please read the product data sheet of EARTH RENDER ADMIXTURE SYSTEMS for details.

### AFTER APPLICATION

Coating may take 24 hours or up to 7 days to dry. Avoid heavy traffic or any staining for at least 24 hours. Clean up equipment with water.

### PILOT TESTING AND QUALITY CONTROL

Due to the variation of building materials, it is strongly recommended that a pilot test on a small area on site should be conducted prior to application to determine the dilution ratio and to find out the suitability of this product for the purpose.

## Typical Data

Appearance:	Milky white viscose emulsion
Solids content:	50% by weight
Specific Gravity:	1.07g/ml at 20°C
pH value:	3-5
Solubility in water:	Soluble in water
VOC content:	Nil
Flash point:	Not allocated

## Important Note

EARTH BONDING EMULSION penetrates into the capillaries and also forms a thin film over the masonry surface while still leaving most of the capillaries open to allow water vapour to pass through. The dust-sealing and surface abrasion resistance of the substrate treated with EARTH BONDING EMULSION is limited. Harsh cleaning, extreme wearing and heavy traffic may have a detrimental effect resulting in significantly reduced durability of the sealer.

EARTH BONDING EMULSION is not a water-proof sealer. Therefore it should not be used in external areas or applied in wet areas.

## Handling & Storage

EARTH BONDING EMULSION 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 and ignition sources. The product has a shelf life of 12 months in a sealed original container under 25°C.

**USE WITH SUFFICIENT VENTILATION!**

**KEEP OUT OF REACH OF CHILDREN!**

## Packaging

EARTH BONDING EMULSION is available in 5 and 20 litre plastic containers. Other size containers are available on request.

## 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.