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EARTHAID

Earthaid is a water repellent silicone admixture for producing breathable natural earth renders that are moisture, mould and salt resistant. This product contains reactive silane/siloxanes which can react with earth render ingredients to impart durable water resistance to the entire body of the earth render against weathering.

It is used as a water repellent admixture for the Tech-Dry earth render system or other polymer render systems. The resultant earth render exhibits good surface beading and low water absorption. Earthaid also provides early water repellency to prevent wash-down due to rain or dew contacting the render before full curing. The water absorption through the render is reduced by up to 95%.

FEATURES:

- Reduced water absorption by up to 95%
- Product remains permanently bonded to the substrate and cannot be washed out
- Does not leave an oily residue on the masonry substrate
- Easy to use in any existing processes
- Water-based silicone nano-technology with no hazardous material emitted during use



EARTH BONDING EMULSION

Earth Bonding Emulsion is a PVA-based surface binder that 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 resistance to surface abrasion. The treatment will not significantly change the surface appearance of the earth buildings.

Earth Bonding Emulsion is recommended as a dust-sealing material for earth buildings or other permeable masonry substrates. It can also be used as a binder in mud brick render or sand/cement render.

FEATURES:

- Water-based non-toxic formulation
- Provides dust sealing and resistance to surface abrasion
- Does not significantly change the surface appearance
- Improves strength, flexibility and adhesion of earth render if used in the render
- Easy application and cost effective



TECH-DRY EARTH RENDER SYSTEM

Tech-Dry earth render admixture system provides a decorative and protective render for earth structures and includes the following ingredients:

1. **Dry earth render mix**
2. **Earth Bonding Emulsion**
3. **Earthaid**
4. **Other ingredients such as colourants/pigments**
5. **Mud Brick Water Repellent (for final finish)**

The Earth Bonding Emulsion and Earthaid are used as admixtures in earth render mixes to provide binding, adhesion and water resistance. Mud Brick Water Repellent is used as the final protective finish after the wall is rendered to provide a durable and breathable exterior water repellent finish.

Earth Bonding Emulsion is a PVA-based binder which has been specifically formulated to be used as an earth render admixture to provide bonding and adhesion. It imparts an excellent long-lasting bonding and adhesion to the earth render. It also provides flexibility to the earth render to reduce earth render cracks. Earth Bonding Emulsion can also be used as a primer or sealer to strengthen and dust seal earth wall surfaces.

Earthaid is a water repellent admixture for earth renders. Earthaid reacts with earth render ingredients to impart durable water resistance to the entire body of the render.

Mud Brick Water Repellent is used as the final protective finish after the wall is rendered with the earth render. It is a siloxane-based penetrating water-repellent sealer which provides excellent long-lasting water repellency to the render without affecting the surface appearance and permeability of the earth building.



PLASTICURE

Plasticure is an innovative water repellent silicone admixture designed to be incorporated in the manufacture of stabilised earth products including stabilised earth building materials and rammed earth walls containing cement.

When added it will make the rammed earth products permanently water repellent, salt and mould resistant, and will strengthen the substrate. This product will allow the structure to impart excellent water repellency, both internally and externally, providing long term resistance against weathering and deterioration. Post construction surface treatments are generally not required.

FEATURES:

- Reduced water absorption and efflorescence up to 80%
- Product remains permanently bonded to the substrate and cannot be washed out
- Does not leave an oily residue on the masonry substrate
- The degree of water resistance can be varied by changing the rate of addition
- Water-based silicone nano-technology with no hazardous material emitted during use



SOME RAMMED EARTH PROJECTS IN VIEW:

- RACV Torquay Golf Club & Resort, Torquay, VIC
- Port Phillip Estate Winery, Red Hill, VIC
- TarraWarra Museum of Art, VIC
- Sand Dune House (broadcast by Grand Designs Australia), Inverloch, VIC
- Merricks North Rammed Earth Construction, (won Master Builders Excellence in Housing Awards in 2012), VIC
- St Francis Xavier College in Berwick, VIC
- Charles Sturt University, Albury, NSW
- Immaculate Heart of Mary Catholic Church, Thurgoona, NSW
- Great Wall of WA, a cattle station in North Western Australia
- First Rammed Earth School in New Caledonia, Noumea, New Caledonia
- NK'Mip Desert Cultural Centre, Osoyoos, British Columbia, Canada

Please note, these are just a few of the projects, where Tech-Dry products were used. For more information please contact us directly.

MUD BRICK WATER REPELLENT

Mud Brick Water Repellent is a solvent-based silane/siloxane impregnate for mud brick or other earth buildings. The product is designed to penetrate into the capillaries of substrate surface and make it water repellent.

Once applied, it provides long term protection against water penetration, mould growth and efflorescence, as it reduces the absorption of water into the mud brick building. It also provides protection against water-borne staining materials which are responsible for the bulk of the deterioration in earth building materials. The treatment will not significantly change the appearance of the substrates and the vapour permeability.

FEATURES:

- Penetrates into the substrate
- Permanently bonds to the substrate with no peel or blister
- UV, alkali stable and durable formulation
- Reduces water penetration, efflorescence and water-borne staining
- Does not significantly change the surface appearance and vapour permeability
- Easy application and cost effective



STABILISED EARTH WATER REPELLENT

Stabilised Earth Water Repellent is a water repellent silicone sealer for rammed earth structures.

The product is designed to penetrate into the capillaries and make the substrate water repellent. This in turn reduces the presence of efflorescence and other water-borne staining materials which are responsible for the majority of the deterioration in earth building materials. It is a clear drying sealer and will not significantly change the appearance of the substrates and the vapour permeability of the treated area.

VARIATIONS:

Stabilised Earth Water Repellent S: The solvent-based formulation allows for deep penetration especially for dense materials. This product will not change the surface appearance or breathability.

Stabilised Earth Water Repellent W: This is an effective, alternate water-based version. The, environmentally friendly formulation allows for easy application.

EARTH BINDER

Earth Binder is an acrylic-based surface binder used to dust seal and strengthen the internal or external surfaces of earth structures. The product penetrates the capillaries of the earth substrate surfaces providing the substrate with a resistance to surface abrasion.

Earth Binder is especially recommended for dust sealing the internal surfaces of rammed earth buildings. It may also be used for external surfaces of earth structures or other permeable masonry substrates and can be used as a primer before rendering for earth buildings or other porous substrates, to strengthen the surface and to improve the adhesion of the render.

FEATURES:

- Water-based non-toxic formulation
- Provides dust sealing and resistance to surface abrasion
- Does not significantly change the surface appearance
- Improves the strength and adhesion of earth renders



EARTHSHIELD

Earthshield is a combined penetrating water repellent sealer and surface dust binder for treating and protecting external earth structures. This solvent-based silicone binder will not change the surface appearance or breathability.

Tech-Dry Earthshield is a penetrating sealer, which reaches deep into the capillaries of earth surfaces, providing a water repellent and dust sealing effect. The occurrence of efflorescence and other water-borne staining effects are virtually eliminated. Impregnation with Earthshield also prevents surface abrasion of the earth structures.

Earthshield is recommended as a water repellent sealer for mud brick buildings or other earth structures especially on exterior walls. It can also be applied to other permeable masonry substrates including natural stones, concrete masonry, bricks, and tiles and grout.

FEATURES:

- Penetrates into the substrate surface
- Permanently bonds to the substrate with no surface coating to peel or blister
- UV, alkali stable and durable formulation
- Reduces water penetration, efflorescence and water-borne staining
- Provides dust sealing effect and prevents surface abrasion
- Does not significantly change the surface appearance and vapour permeability
- Easy application and cost effective.



Earth Building Products Overview

	Earthaid	Earth Binder	Earth Bonding Emulsion	Earthshield	Plasticure	Mud Brick Water Repellent	Stabilised Earth Water Repellent
F U N C T I O N	Water Repellent Admixture				✓		
	Water Repellent Sealer		✓			✓	✓
	Dust Binder	✓		✓			
S U B S T R A T E	Rammed Earth	✓	✓	✓	✓		✓
	Mud Brick	✓	✓	✓		✓	
	Rendered Strawbale	✓	✓	✓			
A R E A O F U S E	Internal Walls	✓			✓		
	External Walls		✓	✓	✓	✓	✓
	Earth Render	✓					