

PRODUCT DATASHEET

STAIN RESISTANT ECOSEALER

MANUFACTURER'S CODE: SRE1-1000

UPDATED: 12-06-2023

PRODUCT NAME: STAIN RESISTANT ECOSEALER

DESCRIPTION: STAIN RESISTANT ECOSEALER is a water-based oil and water repellent which can be used as a stain resistant penetrating sealer for treating masonry substrates. The treatment does not change the surface appearance or vapour permeability of the substrate. It provides excellent stain resistance against most stains including food, wine, tannin, and oil. STAIN RESISTANT ECOSEALER is an environmentally friendly product containing no organic solvent and is a good alternative to a solvent-based stain-resistant sealer. Some of the important features of this product include:

- Good resistance to oil or water-based stains
- Reduce water absorption and algae/mould growth
- Penetrates and permanently reacts with masonry
- Offers durable protection and wearing resistance
- Non-film forming natural finishes with no change of surface appearance
- Water-based environmentally friendly technology with no VOC

RECOMMENDED USES:

STAIN RESISTANT ECOSEALER is suitable for all masonry materials including natural stones, concrete blocks, pavers/driveways, clay bricks, terracotta, tiles and grouts. Because it is a water-borne product, STAIN RESISTANT ECOSEALER has limited penetration ability in dense substrates, so the product is most suitable for treating permeable masonry substrates, however it can still provide reasonable water repellence and stain resistance to dense substrates. For dense materials, Red Wolf's solvent-based stain resistant sealer may be selected as a better alternative.

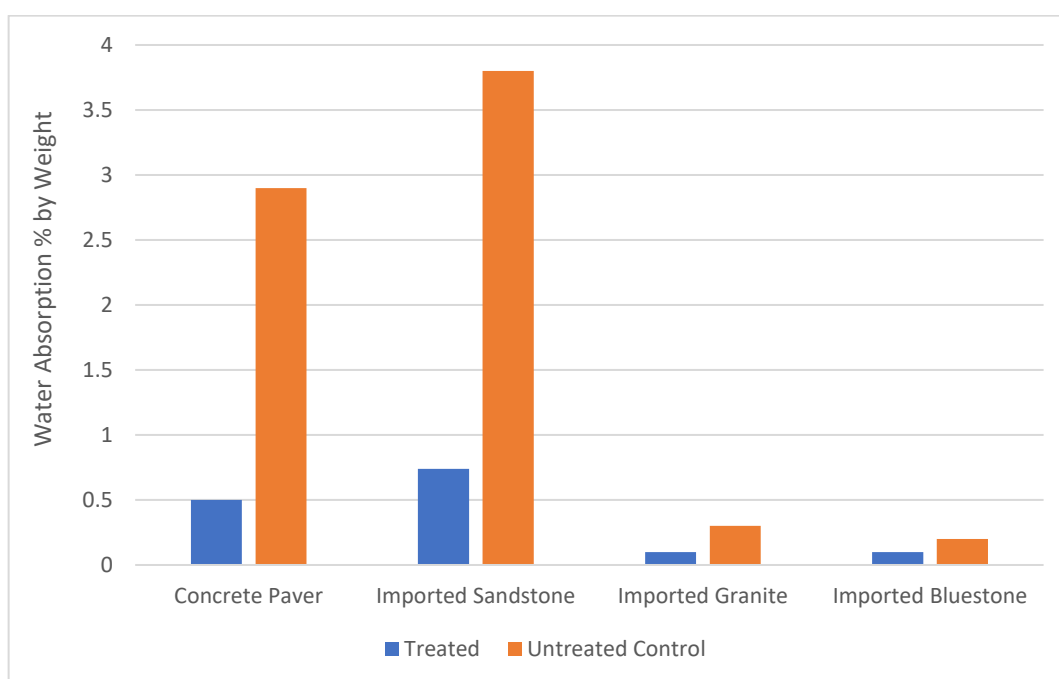
PERFORMANCE UNDER TESTING:

Four popular masonry substrates including a pressed concrete paver, and an imported sandstone as the permeable substrates; and imported granite and imported bluestone as the dense masonry were selected for performance testing. Food dye, red wine, and olive oil were used as staining agents for tests.

Water Absorption:

The capillary water absorption according to DIN 52617 was as shown in Figure 1. The result indicates that the capillary water absorption of all treated substrates was significantly reduced.

Figure 1: Capillary Water Absorption



Penetration Depth:

The penetration depths of the treated substrates are listed in Table 1, below. Being a water-based formulation with limited penetration ability, STAIN RESISTANT ECOSEALER achieved reasonable penetration depths to all treated masonry substrates, except for very dense bluestone.

Table 1: Penetration Depth

Product	Penetration Depth
Concrete Paver	10 - 20 mm
Imported Sandstone	1.5 mm
Imported Granite	2 mm
Imported Bluestone	>0 mm (almost nil)

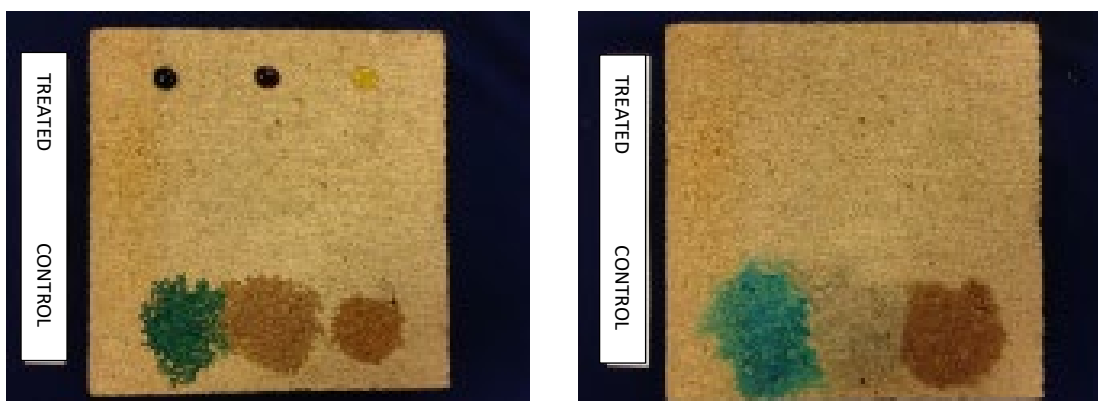
Stain Resistance:

Stains (food dye, red wine, and olive oil) were equally placed as a droplet onto the surfaces of both treated and untreated control surfaces in an order of food dye (left), red wine (centre) and olive oil (right). After approximately 10 minutes, the stains were removed and the surfaces were washed with a dishwasher detergent and nylon brush under running tap water. The substrates were then allowed to dry before the surfaces were visually examined for staining.

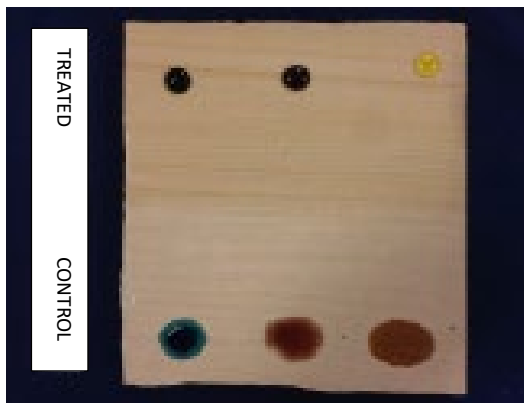
The results are shown in the photos below. The photos on the left were taken after the staining materials were placed onto the surfaces. The top part was the treated part while the bottom was the control. The photos on the right were taken after the stains were removed and surfaces were washed and dry.

1. Pressed Concrete Paver:

Being a permeable substrate, the stains were immediately absorbed by the pressed concrete after being placed onto the surface. In contrast, the stains remained as beads on the treated surface. After the stains were removed and the paver was washed and allowed to dry, the untreated surface was significantly stained, while the treated part showed almost no stains. The result indicates that STAIN RESISTANT ECOSEALER provided significant stain resistance to the pressed concrete paver.

**2. Imported Sandstone:**

Sandstone is also a permeable substrate and the results were similar to that of the pressed concrete paver. The test shows that STAIN RESISTANT ECOSEALER provides a good stain resistance to the sandstone.



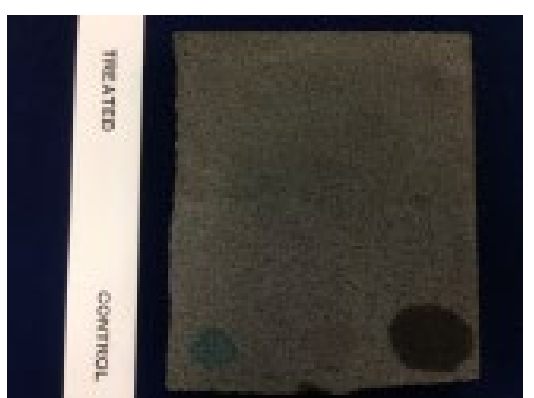
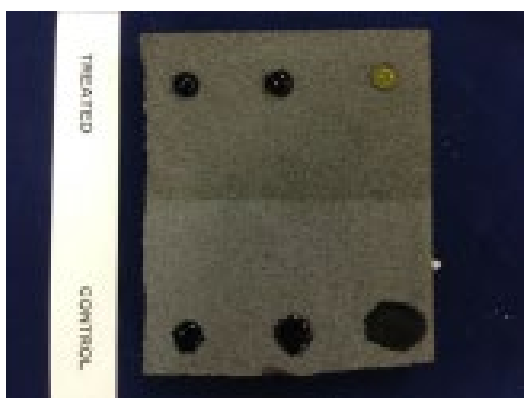
3. Imported Granite:

Granite is a dense natural stone with low water absorption. Although there is no immediate absorption for the untreated surface, the surface was significantly stained after the staining test. In contrast, the treated part showed almost no stains. This indicates that STAIN RESISTANT ECOSEALER provides significant stain resistance to the granite.



4. Imported Bluestone:

Bluestone is a very dense masonry substrate showing limited water absorption but was still affected by staining. The results confirmed that STAIN RESISTANT ECOSEALER provided good stain resistance to this dense bluestone. It is noticed that STAIN RESISTANT ECOSEALER provided better resistance to water-based stains than oil-based stain.



USE INSTRUCTIONS:

Read this product datasheet before application. Do not apply if extreme weather conditions are expected. The surface to be treated should be dry, firm and free from grime, oil and any previous coatings/sealers. All cracks should be filled and allowed to cure before application. As masonry materials vary significantly, a test MUST be carried out prior to application to confirm the suitability of this product for the purpose.

Always stir or shake this product before use!

STAIN RESISTANT ECOSEALER can be applied using brush, roller or low-pressure hand sprayer. The initial treated surface should have a mirror-like wet film appearance. When the first coat has been absorbed by the surface, the second coat should be applied immediately. This is called a wet-on-wet application and is designed to ensure enough material is applied and absorbed into the surface to achieve deep penetration. Any liquid remaining on the surface for more than 10 minutes should be removed to avoid causing an uneven or glazed finish.

The number of applications depends on the permeability of the substrate. Two coats are enough for most substrates, but more coatings may be required for very porous substrates.

The consumption of STAIN RESISTANT ECOSEALER varies significantly in an order of 2-20m² per litre, per coat, depending on the permeability of the substrate, or could be out of this range significantly.

The initial oil/water repellent effect will begin to develop after the surface is dry. Full curing may take up to 7 days. Avoid heavy traffic for at least 24 hours.

Wash equipment in water.

TYPICAL DATA:

Appearance:	White emulsion
Specific Gravity:	Approx. 1 g/ml at 20 oC
pH value: approx.	7-9
Solubility in water:	Miscible in water
VOC content:	Nil

IMPORTANT NOTE:

STAIN RESISTANT ECOSEALER penetrates into the capillaries and renders the surface oil/water repellent while still leaving the capillaries open to allow vapour to breathe. Therefore, prolonged contact of water or stains with the surface can still cause absorption and staining due to the open capillaries. For this reason, it is strongly

recommended that stains should be removed from the contaminated surface as soon as possible to avoid the potential for permanent staining.

The sealer will not prevent surface etching or wearing. STAIN RESISTANT ECOSEALER will make the maintenance and cleaning of a treated surface easier.

HANDLING AND STORAGE:

STAIN RESISTANT ECOSEALER is a water-based non-hazardous product. However, as with all chemical products, good industrial hygiene procedures should be followed when using this product. Store in a closed container in a cool dry place away from any fire sources.

The product has a shelf life of 6 months in a sealed container stored in a cool dry place away from fire or ignition sources at a temperature below 25°C. Use with sufficient ventilation away from fire or ignition sources! Do not aspirate or ingest. See Product Safety Datasheet for full safety instructions.

KEEP OUT OF REACH OF CHILDREN!

PACKAGING:

STAIN RESISTANT ECOSEALER is available in 1, 5 & 20 litre plastic jerry cans, 200 litre drums & 1000 litre IBCs.

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.