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PRODUCT INFORMATION

Manufacturer's Code: RPPSW Updated: 01/01/2025

Product Name: POLISHING LIQUID

Description: POLISHING LIQUID 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. The sealer provides excellent stain resistance against a majority of stains including food, wine, tannin, and oil. POLISHING LIQUID is an environmentally friendly product containing no organic solvent and is a good alternative to the 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
- Offer 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: POLISHING LIQUID is suitable to all masonry materials including natural stones, concrete blocks, pavers/driveways, clay bricks, terracotta, tiles and grouts. Due to being water-based product, POLISHING LIQUID has limited penetration ability in dense substrates so the product may be most suitable for treating permeable masonry substrates. However, POLISHING LIQUID can still provide reasonable water repellence and stain resistance to dense substrates. For dense materials, Tech-Dry solvent-based stain resistant sealer may be selected as a better alternative.

Test & Performance: Four popular masonry substrates including pressed concrete paver and 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 stains for staining tests.

Water Absorption:

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

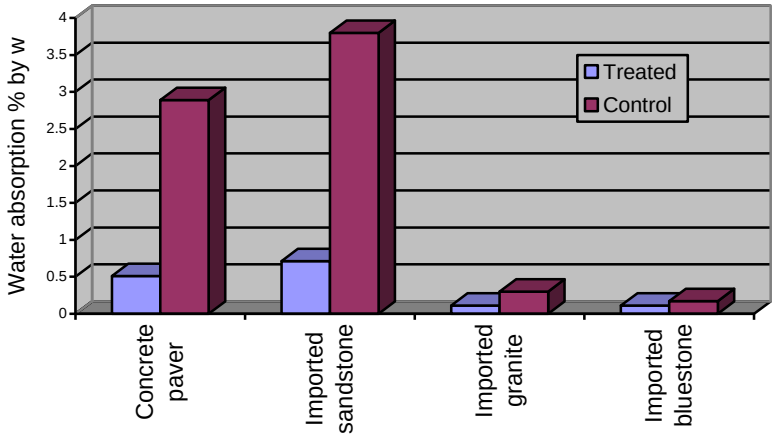


Figure 1: Capillary Water Absorption

Penetration Depth:

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

Table 1: Penetration Depth

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

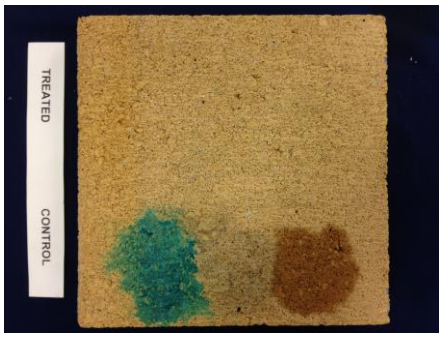
Stain Resistance:

Stains (food dye, red wine, and olive oil) were equally placed as a droplet onto the surfaces of both treated and 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 beadings on the treated surface. After the stains were removed and was washed and dry, the untreated surface was significant stained while the treated part showed almost no stains. The result indicates that POLISHING LIQUID provided significant stain resistance to the pressed concrete.

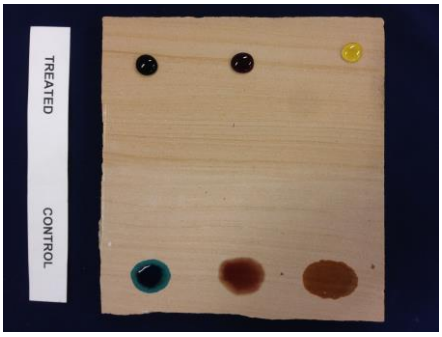
Stain application



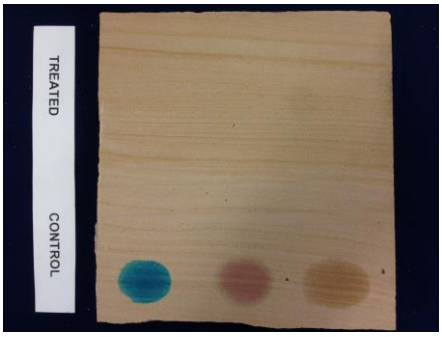
Stains removed, washed and dry

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 POLISHING LIQUID provides a good stain resistance to the sandstone.



Stain application

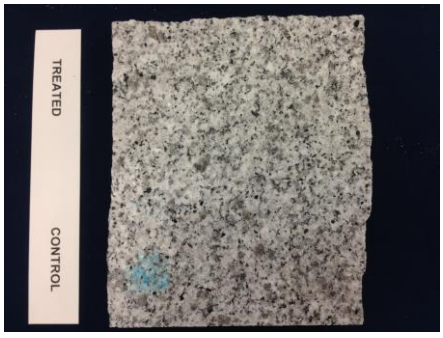


Stains removed, washed and dry

3. Imported Granite:

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

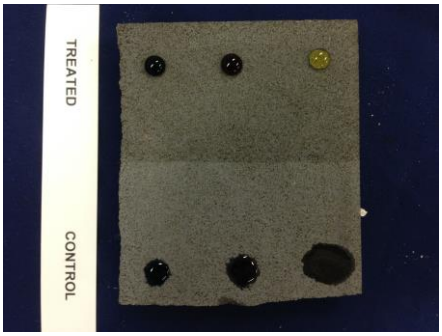
Stain application



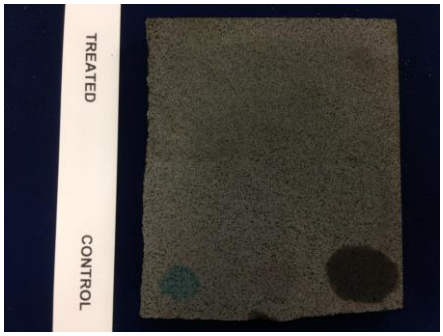
Stains removed, washed and dry

4. Imported Bluestone:

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



Stain application



Stains removed, washed and dry

Use Instructions:

Read the product information 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 find out the suitability of this product for the purpose. **Always stir or shake the product before use!**

POLISHING LIQUID can be also applied using brush, roller or low-pressure hand spray. The initial treated surface should have a mirror-like wet film appearance. When the 1st coat is absorbed by the surface, the 2nd coat should be applied immediately. This is called wet-on-wet application to ensure enough material is applied and absorbed into the surface to achieve deep penetration. Any remaining liquid on the surface for more than 10 minutes should be removed to avoid excessive accumulation of the sealer, which may not be absorbed by the surface causing an uneven finish.

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

The consumption of POLISHING LIQUID varies significantly in an order of 2-20 m^2 per litre per coat depending on the permeability of the substrates or could be out of this range significantly.

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

Typical Data:

Appearance:	white emulsion
Specific Gravity:	approx. 1 g/ml at 20°C
pH value:	approx. 7-9
Solubility in water:	miscible in water
VOC content:	nil

Important Note:

POLISHING LIQUID penetrates into the capillaries and renders the surface oil/water repellent while still leaving the capillaries open to allow vapour to breath. Therefore, prolonged contact of water or stains with the surface can still cause absorption and staining due to the open capillaries. Therefore, it is

strongly recommended that stains should be removed from the contaminated surface as soon as possible to avoid possible permanent staining. The sealer will not prevent surface etching or wearing. POLISHING LIQUID will make the maintenance and cleaning of a treated surface easier. General cleaning is applied for removing stains. Harsh cleaning should be avoided.

Handling & Storage: POLISHING LIQUID is a water-based non-hazardous product. However, as with all chemical products, good industrial hygiene procedures should be followed when using this product. The product should be stored in closed containers 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^{o}C. Use with sufficient ventilation away from fire or ignition sources!

KEEP OUT OF REACH OF CHILDREN!

Packaging: POLISHING LIQUID is available in 1, 5, 20, 200 & 1000 litre plastic drums.