



PROTECT CONCRETE & STONE NANO-COATING

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DESCRIPTION

It is a solvent and VOC free, self-assembling oligomeric micro emulsion in water. Manufactured with a new patented process, the very consistent material mix is providing a capillary impregnation without filling the pores and capillary structure of the substrate. The product is designed as a water-soluble impregnating agent for masonry, including highly alkaline surfaces. The product content of higher alkylated raw material allows the diluted PROTECT C&S to be used on alkaline building materials. It chemically bonds with concrete and masonry substrates and becomes invisible once dry. Its penetration and subsequent chemical reaction with the concrete allow it to provide long term protection for concrete by significantly reducing the ingress of liquid water and any dissolved salts that the water may carry. This product prevents the ingress of liquid water carrying chloride ions. The product creates a high contact angle against water and shows a very effective water/liquid repellent effect as well as dirt reduction with no change in the surface appearance. The formula is unsuitable for hard or polished stone such as marble or granite.

RECOMMENDED SURFACES

Concentrate diluted can be used for the water repellent treatment on following cement based substrates:

- Manmade stone
- Concrete
- Concrete bricks
- Pavers
- Plaster/Render
- Fiber cement products

It is also suitable as an aqueous deeply penetrating primer for coatings like emulsions, silicone resin



paints and ready mixed colored acrylic render. On Natural Stone please test first.

Not to be used on painted or coated surfaces .

PRODUCT FEATURES

- Water repellent
- Easy to clean effect
- Provides good penetration into porous surfaces resulting in excellent moisture regulation
- Economical, outstanding coverage rate.
- Long-lasting
- UV resistant
- Temperature steady
- VOC free

RESISTANT TO

- Water
- Humidity and oil
- Mineral stains
- Bacteria & other microbes
- Mold & algae
- Acid and alkaline
- Abrasion
- Hydrolysis
- Extreme temperatures

TECHNICAL SPECIFICATIONS

SUPPLY FORM:	liquid
COLOUR:	milky
DENSITY:	approx. 1,0
SOLVENTS:	<water
FLASH POINT:	N/A
STORAGE:	not below 4°C
APPLICATION:	between 4 and 35°C

SURFACE PREPARATION

Surface must be clean, dry and free of dirt, dust, contaminants, oil and coatings. A proper surface preparation guarantees the full performance of the product. Standard surface preparation can be used. Efflorescence must be removed. New surfaces should be fully cured. Pressure cleaning on new surfaces is not required. New surfaces must be dust free.

PRODUCT PREPARATION AND MIXING

A recommended formulation for diluting PROTECT C&S with water is as follows:

1 part by volume PROTECT CONCRETE&STONE
9 parts by volume water for direct surface application

The amount of water added may vary between for surface treatments of some natural stones. Penetration is the important factor. The user should determine the optimum dilution for the particular application. Normal water can be used for the dilution.

A recommended formulation for diluting PROTECT C&S with water when used in concrete mix is as follows:

- 1 part by volume PROTECT CONCRETE&STONE
- 100 parts by volume water for adding into concrete mix

The final dilution may reach 2-300 parts water. The user should determine the right amount depending on the final destination of the concrete product and future environmental conditions.

MIXING

Ensure cleanliness during the dilution process to avoid contamination with other chemicals. Containers, hoses, pipes and pumps should be thoroughly cleaned before use to avoid such contamination. Place the appropriate amount of PROTECT C&S into the mixing container first. Then add the water to the emulsion while mixing continuously and vigorously. The container should be kept tightly closed after the mixing.

DIRECTIONS FOR USE

The surface must be dry. Standard processes for the water-repellent treatment of masonry can be used. These include spraying, dipping, and flow coating or brushing. Avoid overspray or splashes on adjoining surfaces, or surfaces not to be treated. Before application on large surfaces, trials should be conducted to determine the optimum active substance concentration. It is very important to apply a significant amount to the substrate to get the penetration depth. 2 coats wet on wet should be applied. On standard concrete 200 ml/m² must be applied. The concrete must be treated to full saturation. The product will penetrate slowly and completely into the concrete. Product sitting on the surface during the application is not an issue and will penetrate as well. Vertical surfaces like facades should be treated from the ground up. Don't apply in bad weather conditions. Impregnation needs 2 – 3 hours to be rain proof.

CURING TIME

First results will be visible after the treated surface is completely dry. During application and drying, the temperature should not drop below [ideal] +10°C/41°F. Dries to touch within 1 to 4 hours on the surface under normal conditions (20°C/68°F, 50% relative humidity). Surface application temperature: + 5 °C to +35°C/41 to 86°F. Avoid applying on hot surfaces.

CONSUMPTION / COVERAGE

Minimum requirement on concrete 200ml/m² of the diluted product. The product should be applied two times wet on wet to full saturation. Avoid spraying on adjoining surfaces. Consumption rates are guidelines only.

TOOLS CLEAN UP

Clean tools with water and soap.

STORAGE / SHELF LIFE

It can be stored in tightly sealed original containers for at least 24 months, if kept dry and at moderate temperatures. It is important to reseal containers tightly after use. Store in a cool, dry place and protect from heat, freezing and direct sunlight. Diluted formulations typically remain stable and suitable for application for 6 month. If stored over longer periods, the formulation may separate. In this case, the formulation must be vigorously stirred before application. In the case of longer storage of the diluted formulation, bacterial contamination becomes more likely. In this situation, the addition of an appropriate anti-algae agent during the initial dilution may be necessary.

PRECAUTIONS

READ ALL SAFETY DIRECTIONS AND WARNINGS ON PACKAGING BEFORE USE. REFER TO MATERIAL SAFETY DATA SHEET FOR HANDLING PROCEDURES. It is not classified as dangerous goods. Adequate protective personal equipment should be used. The use of latex gloves is recommended as the product may dry the skin. Avoid inhalation.