

KS500 - CONCRETE DENSIFIER

Deep Penetrating Concrete Densifier

Product Info

Generic Type:Potassium Silicate .

Coverage: 5-10m²/Litre/coat

Recommended Coats: 1-3

Application Temperature: Above 5°C

Application Method Broom, roller or Spray

Thinning: Do Not Thin

Dry Time: 3 - 5 hours per application

Cure time: can be trafficked on immediately by light and heavy traffic of any type.

Recoat time Wet on wet or anytime after it is dry

Finish: Invisible/flat

Packaging: 2lt, 5lt, 20lt, 200lt

Physical Properties

Appearance Clear liquid

Boiling Point (°C) N/A

Vapour Pressure (mm of Hg at 20°C) N/A

Per Cent Volatiles Nil @ 38° C

Solubility in water (g/l at 25°C) Miscible

FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point, N/A

Flammability Units % by volume N/A

Fire Extinguishing Media N/A

Dangerous Goods Classification: N/A

PRODUCT DESCRIPTION

This concrete sealer is a high tech, clear, water based sealer. The penetrating, inorganic, modified potassium silicate material “fuses” to concrete and appreciably reduces damage to concrete. The unique formula in Permacolour KS500 reacts with the calcium hydroxide in the concrete to form a calcium silicate hydrate gel. This gel is insoluble in water and hardens to densify the concrete, decreasing the moisture permeability and porosity. With the fusion, the substrate actually becomes more resistant to acid and other chemicals. Use in conjunction with Permacolour Repel SS to create the ultimate protection.

SUITABILITY

- New construction as cure then seal
- Existing concrete as Densifier for Ground & polished concrete
- Below grade pre-cast
- Tilt– up form
- Bridge decks
- Driveways
- Walkways
- Basements
- Concrete pavers
- Split face masonry products
- Mortar pool decking
- Marcite
- Gunite
- Stucco
- Bridges
- Tunnels
- Foundations
- Parking garages
- Warehouse floors
- Decorative Coloured Concrete applications
- Historical Preservation

ADVANTAGES

- Ease of application
- Low odour
- Protect concrete surfaces from water, oil, gas, grease, salts, animal waste and chemicals
- Can be applied to freshly poured concrete as a cure and seal
- VOC free

INSPECTION

Surface must be structurally sound, dry, and free of oil, grease, curing agents, dirt, dust or other foreign matter. This product is designed for use over untreated concrete surfaces free from wax, dusting preventive sealers, deep penetrating sealers, bond breaking compounds and release agents and other similar chemicals that will interfere with proper penetration and lead to premature coating failures.

SURFACE PREPRATION

Before any existing concrete is treated, the area must be thoroughly cleaned. The surface should first be swept with a broom to remove any loose dirt. Then it should be cleaned by scrubbing brush/ broom, using Permacolour Concrete Cleaner. The abrasive action removes the film of consolidated dirt and exposes the true wearing surface. The concrete surface should be allowed to dry thoroughly for a minimum of 2 hours at 24°c once surface water has disappeared.

PRECAUTIONS

DO NOT apply over mildew. Mildew is a fungus, brown, black, grey or even white in colour, and will rapidly grow through any coating applied over it.

DO NOT THIN.

DO NOT apply to surfaces when ambient or surface temperatures are below 5C .

DO NOT allow product to lay in puddles after application. Otherwise excess dry product will be difficult to remove.

DO NOT apply externally if rain, frost or freezing temperatures are likely within 12 hours of application.

APPLICATION INSTRUCTIONS

Surface may be slightly dampened just prior to application. Surface/ outside temperature should be 5 °C or more. Apply first coat by low pressure spray - a common garden sprayer works well, or broom on. Apply an even blanket mist just to wet - not soak. Repeat with next coat when dry. On hard trowelled floors, application using a scrubbing machine for several minutes will give an even penetration. Hand broomed in and scrubbed in will also do a satisfactory application. When over applied, white, chalky deposits may appear after drying. These can be stiff-broomed or power washed off.

On Freshly Poured Concrete Use as the cure and the sealer. Ideally, the best time to apply is when the concrete is completely finished and will withstand the weight of a man. Can be applied anytime after placement. Avoid rain or freezing for 12 hours. Apply by spray with medium saturation taking care not to over apply.

*We recommend a maintenance mist after the 28 -45 day curing cycle complete, if possible, for best results.

On Old Concrete Use as a Penetrating Sealer. Always clean the surface, rinse thoroughly (especially when using oil/citrus based cleaners). Let the surface dry and apply the KS500 by low pressure spray or broom. Acid etching prior to KS500 application may be necessary for tight or smooth trowelled surfaces to aid in penetration.

New Concrete Apply the KS500 by low pressure spray to a clean surface. Acid etching prior to KS500 application may be necessary for tight or smooth trowelled surfaces to aid in penetration. Always test first for penetration receptibility prior to application.

THINNING

DO NOT THIN OR DILUTE!!!

DRYING TIME/CURE TIME

3 - 5 hours per application. Permacolour KS500 can be trafficked on immediately by light and heavy traffic of any type.

COVERAGE

Approximately 5-10m² / Litre/ coat.

CLEAN UP

Soap and water (avoid contact with glass & plastic windows & lenses).

MAINTENANCE

Surfaces coated with KS500 can be cleaned with a neutral pH cleaner such as Permacolour's Concrete cleaner. The surface can also be coated with Permacolour's Repel SS for the ultimate protection. For overcoating with other Permacolour sealers, please contact us for more information.

SAFETY & HANDLING

Handling Precautions: Permacolour KS500 should not be allowed to come into contact with skin or eyes, or be swallowed.

Swallowed: If swallowed, do not induce vomiting. Seek immediate medical attention. Begin artificial respiration if the person is not breathing. Use mouth to nose rather than mouth to mouth.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and flush affected area with water.

Eye Contact: Hold eyelids apart and flush the eye continuously with running water. Continue flushing for at least 15 minutes. Get medical attention if irritation persists.

Inhalation: Remove patient from area, lay down and keep warm. Apply artificial respiration if not breathing. Transport immediately to hospital or doctor without delay

Fire: Permacolour KS500 is NOT flammable.

Flash Point: N/A

Storage: Permacolour KS500 should be stored in a cool, dry place away from direct sunlight. Two year shelf life, stored unopened above freezing temperature.

DO NOT FREEZE

KEEP OUT OF REACH OF CHILDREN!

- Contact Permacolour for additional storage and health details.
- MSDS available on request.

This product is considered a non-hazardous chemical under the OSHA Hazard Communication Standard / (29CFR 1910.1200).

EPA/OSHA Complaint - contains no solvents/0% VOC (Volatile Organic Compounds). Non-hazardous to plants and animals.



In this example, we poured 50/50 Hydrochloric Acid and water on a concrete slab. The acid eroded the surface of the untreated concrete. The area treated with Permacolour KS500 has a faint mark but the surface is undamaged

WARRANTY

Permacolour products are warranted for one year after date of purchase. Please refer to the Limited Material warranty for additional clarification. The information contained herein is true and accurate to the best knowledge of Permacolour. Since we cannot anticipate all possibilities and conditions under which this information and our products may be used, Permacolour hereby accepts no responsibility and offers no warranty in the case of results achieved by the use of our products or of the safe use and suitability of these products. Permacolour offers our products for sale subject to, and "The Customer" and all users are deemed to have accepted our Terms and Conditions of Sale. We warrant our products to be free of manufacturing defects. If any product is found to be defective and was within storage/shelf life, Permacolour will replace the product at no charge to the purchaser. Permacolour makes no other warranty with regards to our products, either expressed or implied. Whilst any information provided by ourselves, both verbally or written, is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control. As all Permacolour technical data sheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.