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SURFA-SEAL

FOR ABOVE GRADE MASONRY & CONCRETE

Surfa-Seal is a clear, non-flammable; water soluble penetrating liquid designed to stop water from penetrating a wide variety of concrete and masonry surfaces.

2. Manufactured By:

Bone Dry Products, Inc.
6520 67th Street
Kenosha, Wisconsin 53158

3. Product Description

Surfa-Seal imparts water repellency and reduces water absorption in above grade concrete or masonry structures.

Surfa-Seal penetrates to a depth of 1/8" to 3/4", depending upon the surface texture and porosity of the substrate.

Surfa-Seal contains a proprietary wetting agent composed of sixteen enzymes that permits uniform penetration into the smallest pores found in concrete or masonry.

Surfa-Seal forms an insoluble water barrier that exhibits very little change in water repellency over a period of five to ten years, depending upon climatic exposure.

Surfa-Seal develops water repellency by providing a very low surface tension which prevents water from wetting the surface. Surfa-Seal does not seal the pores, but allows breathability of the sub-structures.

Surfa-Seal can be applied to manufactured and natural stone, new and used brick, concrete brick and block, cast-in-place and precast concrete.

Advantages

- Long life water repellency
- Easily applied: no special equipment required
- resists acid, alkali and salt and oil attack
- provides a natural appearance: no gloss, sheen or any visual evidence that the repellent is present
- does not discolor or peel due to weathering
- seals hairline cracks in concrete or masonry
- improves resistance of treated surfaces to wetting and drying, freeze-thaw cycles, increasing life and durability of the building material
- inhibits efflorescence buildup on concrete or masonry
- protects against discoloration by preventing water borne staining contaminants from entering the surface
- improves weathering resistance by protecting the tiny air spaces within the surface which are subject to attacking elements that break down the concrete and masonry
- protects surfaces against fading by the elements of water, sun, air borne pollutants and frost
- reduces water absorption while still allowing greater than 50% breathability

Composition:

Surfa-Seal is a water based organosilicon (silane) compound which, within 24 hours after application reacts with atmospheric elements to form an insoluble water resistant barrier. This barrier extends to the penetration depth of the Surfa-Seal chemically bonding to the substrate material, preventing any possible peeling. Surfa-Seal is extremely resistant to all elements of the atmosphere, particularly ultra-violet degradation, which is the major cause of failures of water repellent coatings. Surfa-Seal is resistant to nearly all solvents, acids and base solutions. Surfa-Seal is non-toxic and non-flammable and has a shelf life of one year.

Sizes:

- 5 Gallon Plastic Pails
- 55 Gallon Steel or Plastic Drums
- 4 Gallons per Case

4. Technical Data

Physical Properties

Appearance	Colorless
Odor	Negligible
Toxicity	None
Flash Point	None
Resistivity	71 Ohms
pH	12.6 pH Scale Units
Total Solids	4.3 % by weight
Specific Gravity	1.025
Weight per Gallon	9.04 lbs.

Water Absorption Percentages:
Untreated Area 98.30%
Treated Area 0.49%

Resistance to Wind Driven Rain:
No moisture penetration after 8 hours @ 98 mph wind. Test was continued for 16 hours @ 140 mph wind with no moisture penetration

5. Installation

Preliminary Testing:

Under the following circumstances, a white deposit may occur on the surface after the Surfa-Seal dries:

- a. surface was treated previously with different waterproofing materials
- b. high acid levels in the building materials
- c. surface too hot due to sun/ambient temperatures
- d. nonporous surfaces not capable of being penetrated, i.e., glazed tile or brick, extremely dense brick, GFRC panels and the like

Since this deposit can only be removed by light sandblasting or other mechanical means, it is very important to test a small area to determine if any of these conditions exist prior to commencing a large scale application.

Preparatory Work:

- a. repair all construction faults, except fine hairline cracks. Large cracks should be filled with a

patching material that is compatible with the substrate.

- b. Clean surfaces thoroughly, removing all dirt, oils, grease and atmospheric latents that could inhibit full penetration of the Surfa-Seal. Extremely dirty surfaces should be cleaned using high pressure with a mild, non-detergent cleaner. Caution: use only organic cleaners, as the residue from a detergent cleaner may reduce the effectiveness of the Surfa-Seal.
- c. Remove any efflorescence using E-4-Clean
- d. Mask windows and all other adjacent surfaces that are not to be treated (i.e., wood, glass, aluminum and the like). Protect shrubbery and other plants near the treating area with drop cloths. Plastic drop cloths should not be used as the greenhouse effect may be detrimental to some vegetation. Protect vehicles and passersby from overspray.

Method of Application:

1. On warm days where the temperature is 90 F or above, or where the surface to be treated has a direct sunlight exposure and is 90 F or greater, the surface must first be cooled down by lightly misting with cold water prior to the application of Surfa-Seal. Caution: Do Not saturate the surface with water. Surface temperature can be approximated by laying a hand on the surface for several minutes. The objective of the cool-down is to prevent flash evaporation of the Surfa-Seal before it has had a chance to penetrate into the surface. This may result in a white deposit being formed.
2. Agitate or stir the Surfa-Seal solution to assure complete mixing of the material.
3. The surface should still be slightly moist from Step1 at the time of application. For best results, apply with low pressure spray equipment at approximately 60 to 150 square feet per gallon, depending upon the texture and porosity of the substrate.

Low pressure spray equipment, such as a hand pumped garden type sprayer works well for medium sized areas. For large areas, airless spray equipment is very efficient. Small areas can be effectively treated using a spray bottle. Brushes or rollers are not recommended because of the low viscosity of the Surfa-Seal.

4. After application, allow 24 hours (recommended) for maximum development of repellency

5. If a second coat is necessary, it should be applied within 15 minutes of the first application. In extremely warm weather, reduce the size of the areas to be treated to allow for more rapid drying. If the surface dries too quickly, a second application may cause white deposits to occur on the surface.

Precautions:

1. Wear protective clothing and eye protection. Wash hands immediately after handling. If contact with eyes occurs, flush thoroughly with clear water and seek medical attention immediately.
2. Avoid overlapping or running; keep a wet edge. Always pick off any rundowns with a dry roller or brush.
3. In some overlapping conditions, white deposits may occur as Surfa-Seal dries. To remove, wipe with a damp cloth soon after forming. Delay in removing the deposit may necessitate removal by mechanical means.
4. Prevent Surfa-Seal from contacting aluminum. If contact does occur, wipe immediately with a damp cloth to prevent etching.
5. Prevent Surfa-Seal from contacting glass. When contact does occur, wipe immediately with damp cloth to prevent etching. If it should dry, remove with a razor blade.
6. When applied to brick walls, it is important to insure that water is not intruding behind the wall through any entrances such as leaking flashings, sills, copings or faulty caulk joints. In cold weather, spalling of the brick may occur due to the water freezing behind the waterproofed face of the brick.
7. If Surfa-Seal should freeze, a crystalline structure may develop. This does not damage the material. Allow material to thaw at room temperature until a clear solution is achieved.

6. Availability

Surfa-Seal is available through local distributors and dealers, or may be ordered directly from the manufacturer if a supplier is not available in your area.

7. Guarantee

The information and data contained herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since Bone Dry Products, Inc. cannot know all of the uses to which its products may be put, or the conditions of use, it makes no warranty concerning the fitness or suitability of its products for any particular purpose.

The user should thoroughly test any proposed use of our products and independently conclude satisfactory performance for the given application. Likewise, if the manner in which our products are used requires agency or government approval, user must obtain it. Bone Dry Products, Inc. warrants only that its products will meet its current specifications. There is no warrant of merchantability of fitness for use, nor any other expressed or implied warranties. The user's exclusive remedy and the sole liability of Bone Dry Products, Inc. is limited to refund of the purchase price or replacement of any product shown to be otherwise than as warranted. Bone Dry Products, Inc. will not be liable for consequential or incidental damages of any kind.

Suggestions of previous users should not be taken as inducements to infringe on any patents.

8. Technical Services

Bone Dry Products, Inc. maintains relationships with industry professionals available to assist with any application. Our research and Development Engineering Department is continually working to improve existing products and methods as well as developing new products.

9. Filing Systems

Bone Dry Products, Inc.
8989 Lakeshore Drive
Pleasant Prairie, Wisconsin 53158
262-694-9748