

SEAL-A-CRETE SURFACE SHIELD

PROTECTS AND PRESERVES CONCRETE, MASONRY, RENDER & BRICK



Surface Shield being applied to a concrete block sound barrier

CLEAR ORGANO SILICON POLYMER WATER AND STAIN REPELLENT

SURFACE SHIELD is specially formulated to protect above grade masonry against absorption of water and stains. The silicon polymers contained in Surface Shield are chemically compatible with (and become a component part of) the surface of stone, brick, block or concrete.

As SURFACE SHIELD penetrates deeply into the pores of the masonry surfaces, it undergoes a chemical reaction with the moisture and carbon dioxide it contains to form a stable, highly water, stain and acid resistant barrier which dries in 24 hours.

ADVANTAGES

- Repels moisture and resists oil
- Seals hairline cracks in concrete and masonry
- Efflorescence is minimized or eliminated
- Spalling and pitting are greatly retarded or eliminated
- Peeling and flaking on interior painted walls is greatly minimized
- Cleaner exterior surfaces (merely flush with water to clean)
- Improves freeze-thaw resistance
- Resistant to most caustic acids
- Improves slip resistance
- Effective on brick, mortar, concrete, concrete block, slag block, cinder block, limestone and tile

SURFACE SHIELD PERFORMS BETTER THAN MASTICS, WAXES OR OTHER SEALERS AND PAINT BECAUSE:

- They alter the appearance of the substrate
- They completely seal the masonry pores to the passage of air and moisture, forming condensation that can produce mould or otherwise damage the interior of the wall

SURFACE SHIELD BREATHES AND IS INVISIBLE

NATURAL BEAUTY OF CONCRETE, MASONRY, BRICK & RENDER IS RETAINED

SEAL-A-CRETE SURFACE SHIELD

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

PRODUCT DESCRIPTION

SURFACE SHIELD imparts water repellency and reduces water absorption in above grade concrete or masonry structures.

SURFACE SHIELD penetrates to a depth of 7mm to 29mm depending upon the surface texture and porosity of the substrate.

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

SURFACE SHIELD 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.

SURFACE SHIELD develops water repellency by providing a very low surface tension which prevents water from wetting the surface. SURFACE SHIELD does not seal the pores, but allows breatheability of the sub-structures. SURFACE SHIELD 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 discolour 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
- treated surfaces can be easily cleaned by merely flushing with a hard stream of water
- reduces water absorption while still allowing greater than 50% breatheability

COMPOSITION:

SURFACE SHIELD 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 SURFACE SHIELD chemically bonding to the substrate material, preventing any possible peeling. SURFACE SHIELD is extremely resistant to all elements of the atmosphere, particularly ultra-violet degradation, which is the major cause of failures of water repellent coatings. SURFACE SHIELD is resistant to nearly all solvents, acids and base solutions. SURFACE SHIELD is non-toxic and nonflammable and has a shelf life of one year.

SIZES:

20 Ltr Plastic Pails

TECHNICAL DATA

Physical Properties

Appearance Colourless

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

Water Absorption Percentages:

Untreated Area 98.30%

Treated Area 0.49%

Resistance to Wind Driven Rain:

No moisture penetration after 8 hours @ 158 kph wind.

Test was continued for 16 hours @ 226 kph wind with no moisture penetration.

APPROVALS:

USDA - chemically acceptable as a coating for application to structural surfaces where there is a possibility of incidental food contact in establishments operating under the Federal Meat and Poultry Products Inspection Program.

INSTALLATION

Preliminary Testing:

Under the following circumstances, a white deposit may occur on the surface after the SURFACE SHIELD dries:

- surface was treated previously with different waterproofing materials
- high acid levels in the building materials
- 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 SURFACE SHIELD. 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 SURFACE SHIELD.
- c. Remove any efflorescence using an industrial cleaner.
- 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 dropcloths. Plastic dropcloths 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 32°C or above, or where the surface to be treated has a direct sunlight exposure and is 32°C or greater, the surface must first be cooled down by lightly misting with cold water prior to the application of SURFACE SHIELD. 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 SURFACE SHIELD 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 SURFACE SHIELD 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 2.5 to 4.5m² per Litre, 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 SURFACE SHIELD.
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 SURFACE SHIELD dries. To remove, wipe with a damp cloth soon after forming. Delay in removing the deposit may necessitate removal by mechanical means.
4. Prevent SURFACE SHIELD from contacting aluminum. If contact does occur, wipe immediately with a damp cloth to prevent etching.
5. Prevent SURFACE SHIELD 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 SURFACE SHIELD 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.

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