

SURE KLEAN WEATHER SEAL SILOXANE

DESCRIPTION AND USE:

Sure Klean Weather Seal Siloxane is a ready to use masonry water-repellent based on oligomeric alkyl-alkoxy siloxane of excellent stability against alkali. The product is formulated for low pressure spray application to concrete and masonry surfaces and upon reaction with the surface and humidity is transformed into a highly water-repellent siloxane compound which is chemically bonded to the substrate. Weather Seal Siloxane provides superior protection against moisture intrusion and resulting efflorescence, leaching, mildew and atmospheric staining, freeze/thaw spalling, etc. Weather Seal Siloxane exhibits excellent resistance to the damaging effects of the environment such as acid rain and carbon crusting.

Weather Seal Siloxane is also suitable for application to concrete flatwork, parking structures, athletic stadiums and engineered concrete surfaces. Siloxane solids are suspended in a highly mobile solvent carrier and the material's small molecular structure allows for maximum penetration into the concrete to provide effective surface and subsurface repellency. Weather Seal Siloxane reduces chloride ion migration through cement materials and treatment of reinforced concrete reduces surface erosion and corrosion of rebar caused by attack of water borne salts and alkalis.

Surfaces treated with Weather Seal Siloxane have a totally natural appearance. When properly applied the treatment does not produce a surface buildup, darkening or other effects on the natural color or texture of the surface.

Sure Klean Weather Seal Siloxane has the following properties which are essential for long lasting, effective water-repellent protection.

- \$ Low molecular weight – therefore high penetration into the construction material
- \$ Contains long alkyl groups – therefore suitable for highly alkaline construction materials such as concrete, masonry mortar, etc.
- \$ No affect on the vapor permeability of masonry or its ability to dry out – prolongs the surface life of the treatment and prevents damage caused by entrapping moisture within the masonry.
- \$ Totally penetrates the masonry surface imparting no color change to the natural masonry appearance.

\$ Can be applied to masonry surfaces which are slightly damp – therefore more suitable for general application.

\$ Quick formation of surface repellency – quick resistance to driving rain.

\$ High flash solvent carrier – makes material pleasant to work with (low fuming) and provides for maximum efficiency in the water-repellent treatment. No loss of active ingredients due to evaporation.

ADVANTAGES OF OLIGOMERIC SILOXANES OVER OTHER WATER-REPELLENT COMPOUNDS* Silicone, Oils, Organic Sealers, Surface Coatings.

Conventional materials for water-repellent or waterproofing treatment of masonry surfaces are surface coatings, oils or organic sealants which deposit waterproof materials in or on the pores of the surface. These deposits block the natural porosity and permeability of the masonry materials. Water which may enter the masonry by condensation or from ground water sources migrates through the masonry and will attack the adhesive bond which holds these water-repellent solids in place. This results in greatly reduced service life of the treatment and eventual damage to the surface.

A further reason for the failure of conventional treatments is their low resistance to alkaline construction materials such as masonry mortars and cement rich concrete. Alkaline surfaces attack most resins and oils, drastically reducing the effective life of the repellent. This largely accounts for the high failure rate of water repellents on new construction surfaces.

Weather Seal Siloxane reacts with the surface and produces a chemical bond with the natural materials in the masonry. The siloxane compound which is formed has a close affinity with the substrate and does not block the natural permeability of the surface. Internal moisture is allowed to dissipate through the surface without adverse affect on the water-repellent and damage which can be caused by entrapped moisture is prevented. Weather Seal Siloxane is not affected by alkaline surfaces – effective for all masonry including highly alkaline mortars and cement rich materials.

LIMITATIONS

Sure Klean Weather Seal Siloxane may not be suitable for application to some types of natural stone. Always test to assure desired results. Not suitable for application to gypsum plaster or synthetic resin paints. May not be suitable for surfaces to receive surface paints or coatings. Always test for compatibility.

Weather Seal Siloxane should not be applied at surface and air temperatures below 4.4°C (40°F) or above 38°C (100°F). The material should be stored in sealed containers and kept away from extreme heat.

TECHNICAL DATA

Active Substance: Oligomeric siloxane with long alkyl groups
Active Substance Content: 6.7%
Formation of Active Material: 5.0
Specific Gravity: 0.78
Flash Point: 43°C (110°F)
Appearance: Slightly opalescent liquid
Solvent: Mineral Spirits
Weight/US Gallon: 6.6 pounds

INSTALLATION:

Precautions: Sure Klean Weather Seal Siloxane contains blended solvents and should be handled accordingly. Do not use near fire or extreme heat and provide good ventilation to avoid buildup of solvent fumes. When applying to interior surfaces, applicator should wear approved cartridge type respirators and provide good cross ventilation. When applying to exteriors of occupied buildings, all exterior air conditioning vents should be covered during application. Clothing which may become contaminated with Weather Seal Siloxane should be changed as quickly as possible

Preparatory Work: A test application is necessary on each surface and/or masonry material to be treated to insure compatibility and desired waterproofing results. Test panels are also useful in determining final application rate and procedures.

Test should be applied using the same equipment as for job application. Test panels should be available for inspection by the Architect throughout job application.

Adjoining glass, metal and painted surfaces should be protected from over spray and splash of Weather Seal Siloxane. Inadvertent splashes should be removed using mineral spirits before the solution has dried on the surface.

Surface Preparation: Surface Cracks and voids of more than 1/12" should be tuck-pointed or patched prior to application of Weather Seal Siloxane. All caulks and sealants should be in place and cured prior to application.

The masonry surface should be clean and free of surface dirt, dust, oil or other surface contaminants. Use proprietary masonry cleaning compounds where necessary followed by thorough rinsing with water. Surfaces to be treated may be damp but should be absorbent to assure good penetration of Weather Seal Siloxane.

APPLICATION

Weather Seal Siloxane should be applied as packaged. Do not dilute or alter material. Preferred method of application is with low pressure (20 psi) airless spray equipment or with a heavily saturated brush or roller. Sprayer should be fitted with solvent resistant hoses and gaskets.

The unique characteristics of Weather Seal Siloxane requires somewhat different application techniques from standard materials. Weather Seal Siloxane should be applied in two "wet-on-wet" applications for best results on most porous materials. In the case of extremely dense, architectural concrete and similar surfaces, it may be necessary to restrict the amount of material applied to one saturating application in order to prevent surface darkening.

Apply Weather Seal Siloxane in a flooding application, from the bottom up with sufficient material applied to produce a 6" to 8" rundown below the contact point of the spray pattern with the masonry surface. Allow the first application to penetrate the masonry surface (approximately 3-5 minutes) and reapply in the same saturating manner. Less material will be required to saturate the surface on the second application.

When using brush or rollers, care should be taken to assure that enough solution is applied. Apply sufficient material to thoroughly saturate the surface making sure to brush out heavy runs or drips that do not penetrate.

When applying to horizontal surfaces, Weather Seal Siloxane should be applied in a single saturating application with sufficient material applied so that the surface remains wet for a few minutes before penetrating into the concrete. Surface residues, pools

and puddles should be broomed out thoroughly until they completely penetrate into the surface.

COVERAGE RATES

Porosity and texture of the masonry surface will affect the amount of material necessary for effective treatment. The following is a guide for estimating material requirements for various surfaces. Always test on actual surface to get precise consumption rates.

Clay Brick	2.45-3.70m ² /L (100-150ft ² /US gal.)
Cement Brick	1.96-2.90m ² /L (80-120ft ² /US gal.)
Concrete Brick	1.50-1.96m ² /L (60-80ft ² /US gal.)
Smooth Concrete (precast)*	3.06-4.29m ² /L (125-175ft ² /US gal.)
Smooth Concrete (steel trowel finish)	3.68-4.80m ² /L (150-200ft ² /US gal.)
Stucco	3.06-4.29m ² /L (125-175ft ² /US gal.)
Exposed Aggregate	2.45-3.70m ² /L (100-150ft ² /US gal.)
Natural Stone (rock face)	2.45-3.70m ² /L (100-150ft ² /US gal.)
Natural Stone (smooth cut)	3.06-4.29m ² /L (125-175ft ² /US gal.)

*Some precast concrete materials contain integral waterproofing agents and admixtures which produce extremely dense surfaces. These surfaces may require very little Weather Seal Siloxane and consumption rates of 7.35-9.8m² (300-400ft²/US gal.) are adequate.

PAINT ADHESION

Surfaces treated with Weather Seal Siloxane can be over painted at any time with silicone paints and most emulsion paints. Testing is always necessary to assure adhesion due to the wide variety of paints and coatings being supplied.

In case of mineral and cementitious paint coatings as well as cement plasters, Weather Seal Siloxane should be applied only after painting.

SAFETY PRECAUTIONS

Consult Material Safety Data Sheet (M.S.D.S.) for specific instructions. MSDS #124

WARRANTY

The recommendation made and the information herein is based on our own and independent laboratory experience, and is believed to be accurate under controlled conditions. However, no warranty or guarantee of accuracy is made because we cannot cover every possible application of product nor anticipate every variation encountered in weather conditions, job-conditions, methods used and types of surfaces on which the product is applied.

The users shall make their own tests to determine the suitability of such product for any particular purpose.

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