

SiloxSeal Product Data Sheet

Product Description:

Silox-Seal is a **silane/siloxane** water-based high performance penetrative masonry water repellent. The product is free of solvent and hazardous ingredients. **Silox-Seal (Silane/Siloxane)** forms a hydrophobic barrier beneath the surface and seals out moisture while remaining highly vapor permeable. It will chemically bond with the substrate. The visual appearance of the treated surfaces will show nominal or no change resulting from product application. The benefits include enhanced resistance to efflorescence, freeze thaw damage, cracking and spalling. Cured system is resistant to ultraviolet light and may be used as a sealer for surface coatings. Performance exceeds the requirements of NCHRP 244 and federal specification SSW 110C when applied as directed. Silox-Seal (Silane/Siloxane) is used to protect and maintain bridges, parking garages, airport pavements, industrial plants and other concrete structures

An effective alternative to conventional solvent-based silanes or siloxanes, Silox-Seal (Silane/Siloxane) penetrates and chemically bonds deep within the masonry substrate to provide long-lasting protection against water related staining or deterioration. Will not darken most color-sensitive surfaces. Will not produce a surface film or impair the natural breathing characteristics of treated surfaces.

Advantages of Silox-Seal (Silane/Siloxane)

- Penetrates deeply to produce long-lasting protection on vertical or horizontal surfaces.
- Water based formula minimizes explosion and fire hazards associated with alcohol or solvent- based water repellents on interior app.
- Easy soap-and-water cleanup from window glass, window frames and application equipment.
- Low odor reduces risk of application to occupied buildings.
- Alkaline stable - suitable for new "green" concrete.
- Ideal for field or in-plant treatment of concrete or GFRC Limitations
- Will not prevent water penetration through structural cracks, defects or open joints.
- Limited initial surface repellency.
- When applied to pH neutral surfaces, optimal performance may take up to 14 days to develop.

Product Uses:

New and old cementitious materials and mortars. All untreated mineral and aggregate materials such as Limestone, Sandstone, Clay tile and Stucco. Silox-Seal (Silane/Siloxane) is recommended to seal chimneys, drive ways, parking decks, walkways, tuck-pointing, grout, and provide a vapor barrier in damp areas. Silox-Seal (Silane/Siloxane) is used to protect and maintain bridges, parking garages, airport pavements, industrial plants and other concrete structures. This is a penetrating, matte finish, virtually an invisible sealer.

Spread Rate:

Smooth concrete floors	300 - 350 sq.ft./gal
Rough Textured Concrete	175 - 225 sq. ft / gal
Extruded Clay Brick	100 - 120 sq.ft./gal
Dry-pressed Clay Brick	70 - 90 sq.ft./gal
Smooth Textured Stucco	230 - 270 sq.ft./gal
Rough Textured Stucco	120 - 150 sq.ft./gal
Smooth Textured Concrete Block	70 - 80 sq.ft./gal
Split Faced Concrete Block	50 - 60 sq.ft./gal

Although the recommended spread rates are generally adequate, there may be variations in substrate porosity, which may require more or less material for optimum results. Apply at recommended spread rate after determining the size of the surface. With Silox-Seal (Silane/Siloxane) one coat is normally adequate, a two-coat application reduces the potential for inadequate coverage.

Surface Preparation:

Apply only to untreated surfaces. Silox-Seal (Silane/Siloxane) may be applied over itself or generic equivalents that have aged or have been applied at less than specified spread rates. Remove existing efflorescence by sandblasting or allowable acid cleaning solutions.

All structural cracks must be sealed with appropriate sealants or caulking. Severely aged and eroded mortar joints must be tuck-pointed, preferably with acrylic modified mortar. Remove all loose surface contaminants, grease and oil. Cover all glass surfaces not reachable from ground level.

Application:

Always apply with uniform pattern until surface is saturated and the material starts to run down. Preferred method of application is with low pressure, garden type spray equipment, however brush or roller application is adequate where appropriate. Material can also be applied by airless spray equipment, however it is essential that the pressure be set very low so as to prevent atomization of the sealer upon leaving the tip.

When applying Silox-Seal (Silane/Siloxane), it is suggested that the substrate receive an initial light "mist" coat to break the surface tension. This should then be followed immediately by a uniform flood coat which allows just enough material to carry a 4 inch rundown from the contact point.

DO NOT apply to surfaces below 40° or above 110°

Thinning and Cleanup:

No thinning is necessary. Clean equipment with water immediately after use.

Curing Time:

New Alkaline Substrates (Concrete, Split-face Block, Exposed Aggregate): For best results allow substrate to cure for 28 days. Silox Seal may be applied to green concrete provided the surface is dry. Full cure is obtained in 3 days.

Aged & Neutral Substrates: Full cure of Silox Seal may take up to 4 weeks. Interim exposure to the elements does NOT remove the product.

Recoating:

When a second coat is specified or desired the surface may be recoated when surface is free of liquid or at any time when the surface is dry.

Special Precautions:

Water repellency effectiveness may be checked very simply. Depending on the type of substrate, after the anticipated cure time, wet the substrate with water. The surface coloration should remain uniform. Water penetration will be evidenced by irregular darkening and/or dark spots in the substrate. This may indicate inadequate coverage and require additional product application. Silox Seal applied as directed will perform in accordance with designated specifications.

Physical Data:

Active Content	:10%
Density	:8.2-8.3
Volitale Organic Content (VOC)*	:40g/l (ASTM 3960/81)

*** Silox Seal as supplied does not have measurable VOC. The designated VOC value is generated as a by-product of the curing mechanism.**

Disclaimer:

Although Silox Seal is an extremely effective water repellent with a long lasting service life, it is not designed to exclude water penetration under the following conditions:

- Open Structural Cracks
- Hydrostaic Pressure
- Visible Holes in substrate
- Wind driven rain that exceeding 45 MPH and/or below a 45 degree angle on surfaces with pinholes or physical openings.

*** Porous surfaces with cavities or pinholes throughout should be treated with surface coatings after Silox Seal application.**