

WATER-BASED SILANE-SILOXANE FOR POROUS CONCRETE SUBSTRATES

INVISISEAL

TECHNICAL DATA

1.0 DESCRIPTION

INVISISEAL Penetrating Sealer is a water-based, solvent-free silicone applied to porous concrete construction materials such as pavers, driveways, footpaths, etc to make them water repellent without changing their appearance creating a durable hydrophobic (water repelling) treatment.

INVISISEAL Penetrating Sealer reacts with the concrete, generating the active ingredient, without blocking the pores and capillaries within the surface structure. Water absorption is greatly reduced while water within the material is still able to evaporate out. INVISISEAL Penetrating Sealer has excellent alkali resistance and has a low volatility, therefore little evaporation loss during application.

INVISISEAL Penetrating Sealer is suitable for application to horizontal surfaces, both interior and exterior.

2.0 PHYSICAL PROPERTIES:

2.1	Colour	White (as supplied – colourless when applied)
2.2	Specific Gravity	Approx 1
2.3	Flashpoint	Non-Flammable
2.4	Viscosity	Liquid
2.5	pH	6 – 7
2.6	Shelf Life	6 months in tightly sealed, original containers
2.7	Safety	Not Hazardous. Not DG for transport
2.8	Coverage	See section 4

3.0 USES

- 3.1 INVISISEAL Penetrating Sealer can be applied to horizontal substrates to make them more resistant against capillary absorption of water without significantly changing the substrate's appearance. Treated surfaces are more easily cleaned when compared to untreated surfaces. When surfaces treated with INVISISEAL Penetrating Sealer are exposed to water, they show a fast beading action.
- 3.2 Materials suitable for treatment with INVISISEAL Penetrating Sealer include plain and reinforced concrete and other cementitious construction materials. INVISISEAL Penetrating Sealer is applied to surfaces to increase protection from the following:
- Spalling due to frost or freezing.
 - Efflorescence and leaching of salts.
 - Penetration of dirt, rust etc.
 - A reduction in growth of moss lichen and mildew due to reduced surface moisture
 - Corrosion due to waterborne chemicals.
 - Reduced surface degradation due to dirt and soiling.

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TECHNICAL DATA Continued

3.0 USES (continued)

- 3.4 INVISISEAL Penetrating Sealer is not for use on surfaces exposed to water pressure such as water storage tanks, bunds, external below-grade walls, etc and horizontal surfaces subject to continuous ponding, previously painted or sealed surfaces (including where a concrete curing compound has been used) and highly porous substrates.
- 3.5 INVISISEAL Penetrating Sealer is not suitable for application to dense natural surfaces or low porosity substrates such as ground or polished concrete. The substrate to be treated must be tested for suitability and effectiveness of INVISISEAL Penetrating Sealer.

4.0 APPLICATION – read in conjunction with product label

Performing a Test Application

- 4.1 Due to the variations inherent in concrete surfaces, the applicator must test INVISISEAL Penetrating Sealer in a small inconspicuous area before proceeding with full application to determine if suitable for the application and/or our information is applicable in a particular circumstance. Where moisture may be an issue, monitor the test area for as long as practicable prior to starting the project application. Test an area of dry concrete. Specifier and user shall determine suitability for a specific application and assume all responsibilities in connection therewith.
- 4.2 Determine water repellency effectiveness by applying 2 coats of INVISISEAL Penetrating Sealer at 4m² per litre before proceeding with complete application. Substrate composition may result in random variations in porosity, thereby affecting coverage and sealing effectiveness. Coverage rates must be adjusted to compensate for the resulting penetration – adjust coverage down (more product per m²) if the concrete is porous and INVISISEAL Penetrating Sealer is easily absorbed. Conversely, adjust coverage up (less product per m²) if the concrete is dense and the INVISISEAL Penetrating Sealer does not quickly absorb into the surface. Typical application rate for concrete is 4 – 8m² per litre per coat (2 coats)

SURFACE PREPARATION

- 4.3 The surfaces to be treated must be free of dust, dirt, efflorescence, moss, lichen and any other material that is likely to prevent or reduce penetration of INVISISEAL Penetrating Sealer into the surface. Previously coated surfaces are unsuitable for treatment unless the coating can be completely removed to permit absorption. A simple water test will determine if the surface will be suitable for application of INVISISEAL Penetrating Sealer. Apply a small amount of water to the concrete surface. If the water penetrates into the concrete, then the surface should be suitable for application of INVISISEAL Penetrating Sealer. If the water beads on the surface, this indicates that the pores and capillaries of the concrete are blocked and therefore the surface is not suitable for an application of INVISISEAL Penetrating Sealer.
- 4.4 Freshly poured concrete should be left for as long as practicable before application (at least 28 days). Excess moisture in the concrete will limit the penetration efficacy of INVISISEAL Penetrating Sealer and reduce its performance and longevity.
- 4.5 The surface should be as dry as possible to permit maximum penetration. Dampness will reduce penetration and therefore the life expectancy of the treatment.

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TECHNICAL DATA Continued

APPLICATION Continued

- 4.6 Do not dilute. INVISISEAL Penetrating Sealer is supplied ready to use and must not be diluted.
- 4.7 INVISISEAL Penetrating Sealer should be applied in two applications, wet-on-wet, to ensure proper coverage. Do not allow puddles to form; brush out excess material to ensure an even application. Depending on surface porosity and type, coverage will range from 4 – 8m² per litre. Test surface consumption before treatment to determine coverage rate. INVISISEAL Penetrating Sealer may be reapplied at a later date if required. Do not underapply – applying at too high coverage rate for the specific substrate will result in poor performance.
- Coverage rate is based on applying two coats, wet-on-wet (0.5L per coat) at the indicated coverage rate.
- 4.8 Large areas are best treated using airless spray equipment. Use low spraying pressure so INVISISEAL Penetrating Sealer is applied in the form of droplets rather than a mist. INVISISEAL Penetrating Sealer is applied until the surface being treated will absorb no more (base coverage on results from test application). Moving the spray nozzle from side-to-side, work across the area to be sealed. Ensure an overlap is obtained between sections. Smaller areas can be treated by brush or roller. It is harder to get adequate penetration using brush or roller so particular care should be taken to ensure sufficient INVISISEAL Penetrating Sealer is applied.
- 4.9 Freshly impregnated surfaces should be protected from rain for 4 – 5 hours by which time they will have become water repellent. Do NOT apply if weather conditions indicate likelihood of rain 4 – 5 hours after application. It is recommended to allow 12 – 24 hours drying before opening to traffic (ensuring surface is completely dry and tack-free)
- 4.10 Protect windows (including cars parked in vicinity), plants, aluminium window frames and any sensitive materials. Remove any splashes before the product evaporates. Protect areas not to be made water repellent from run-down or overspray. Choose a relatively calm day for application and remove any splashes immediately with a wet rag. Clean up tools and equipment with water.

5.0 PRECAUTIONS

INVISISEAL Penetrating Sealer is not a waterproof coating nor a film-forming surface sealer. INVISISEAL Penetrating Sealer offers advantages and features that a coating does not, most notably, application without significantly changing the appearance of the substrate. It is designed to penetrate and chemically bond to substrates protecting from water/moisture absorption while allowing the substrate to “breathe” and therefore pass any trapped moisture back into the atmosphere. In certain conditions (including exposure to continuous rainfall, ponding water, traffic on a wet surface, etc), moisture and/or water may overcome the repellency of the INVISISEAL Penetrating Sealer, thereby penetrating into the substrate. Once these conditions are removed, the substrate will dry out.

Substrates treated with INVISISEAL Penetrating Sealer subsequently exposed to water may have a large amount of water on the surface due to the beading effect of the sealer. As such, be careful with application in areas where slipperiness due to surface water may be a safety factor such as pool surrounds, sloping concrete walkways, etc.

INVISISEAL Penetrating Sealer will help prevent staining of the concrete due to spills of water-based substances; however, as it does not seal the surface, the concrete may still be stained once cleaned. If better stain prevention is required, then seal the surface using HARDCOAT or SAME DAY SEALER from Stratmore.

Do not apply to dense substrates including natural stone, polished or ground concrete. Do not apply to any previously coated substrates including painted, sealed (acrylic sealers or other sealing agents) or where concrete curing compounds have been used. Ensure a test application is performed before use.

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TECHNICAL DATA Continued

PRECAUTIONS Continued

Longevity and performance of the application (especially surface beading) depend entirely on the surface and type of traffic. Heavily trafficked areas, especially vehicular traffic (such as on driveways) will reduce surface beading more quickly than other types of application – most notably in the areas subjected to tyre traffic. INVISISEAL Penetrating Sealer will remain active within the concrete (below the surface) for many years. A reduction in visual beading only indicates that the product has been worn away at the surface. The concrete should remain dry looking in light rain conditions. If the concrete surface appears to be absorbing water, then a reapplication of INVISISEAL Penetrating Sealer is recommended ensuring the surface is clean and free of dirt, dust, etc as noted earlier.

6.0 PACKAGING

4 and 20 litres.



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