

SILANE/SILOXANE WATER REPELLENT FOR MINERAL BUILDING MATERIALS

AQUELLUX S WB

TECHNICAL DATA

1.0 DESCRIPTION

AQUELLUX S WB is a water-based, solvent-free silane/siloxane water repellent applied to porous building materials to make them water repellent without changing their appearance.

AQUELLUX S WB has many performance characteristics superior to commonly used silicone, siliconate and silane based materials, including stability on concrete and longevity of treatment.

AQUELLUX S WB reacts on the concrete, generating the active ingredient, without blocking, the pores and capillaries within the surface structure. Water absorption into the building material is stopped or greatly reduced while water within the material is still able to evaporate out. AQUELLUX S WB has excellent alkali resistance and has a low volatility, therefore little evaporation loss during application.

AQUELLUX S WB is recommended for applications where solvent-based water repellents are not suitable such as enclosed areas or where solvent sensitive materials may be contacted.

2.0 PHYSICAL PROPERTIES:

2.1	Colour	White
2.2	Specific Gravity	0.95
2.3	Flashpoint	Non Flammable.
2.4	Viscosity	Low.
2.5	pH	8.
2.6	Shelf Life	12 months in tightly sealed, original containers. Material stored for longer than 6 months may require agitation to mix prior to use.
2.7	Coverage	See section 4.4.

3.0 USES

3.1 AQUELLUX S WB is used to treat vertical and inclined concrete surfaces such as walls and roofs. AQUELLUX S WB is capable of bridging hairline cracks up to 0.3mm wide. AQUELLUX S WB is also available in a modified version for application to very high-strength concrete surfaces.

3.2 Materials suitable for treatment with AQUELLUX S WB include plain and reinforced concrete and other mineral substrates. AQUELLUX S WB is applied to surfaces to increase protection from the following:

- Leakage and dampness.
- 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 thermal insulation due to dampness.
- Reduced surface degradation due to dirt and soiling.

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3.0 USES (continued)

- 3.4 AQUELLUX S WB is not suitable for use on surfaces exposed to water pressure such as tank walls and horizontal surfaces subject to ponding, previously painted surfaces and highly porous substrates. It is also not as effective on dense natural surfaces such as limestone and marble. The substrate to be treated must be tested for suitability and effectiveness of AQUELLUX S WB.

4.0 APPLICATION

SURFACE PREPARATION

- 4.1 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 AQUELLUX S WB into the surface. Previously painted surfaces are unsuitable for treatment unless the coating can be completely removed to permit absorption.
- 4.2 Freshly poured concrete should be left for 6 weeks before application.
- 4.3 The surface should be as dry as possible to permit maximum penetration. Some dampness can be tolerated but will reduce penetration and therefore the life expectancy of the treatment.

APPLICATION

- 4.4 AQUELLUX S WB should be applied in two applications, wet-on-wet, to ensure proper coverage. Do not allow puddles to form. Depending on surface porosity and type, coverage will range from 1 – 4m² per litre. Test surface consumption before treatment. AQUELLUX S WB may be reapplied at a later date if required.
- 4.5 Large areas are best treated using airless spray equipment. Use low spraying pressure so AQUELLUX S WB is applied in the form of droplets rather than a mist. Starting from the bottom of a surface working up, AQUELLUX S WB is best applied in vertical sections the width of which is determined by the reach of the applicator. AQUELLUX S WB is applied until the surface being treated will absorb no more. Moving the spray nozzle from side to side work up the surface. Ensure an overlap is obtained between vertical sections.
- 4.6 Smaller areas or walls with many windows 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 AQUELLUX S WB is applied.
- 4.7 Freshly impregnated surfaces should be protected from rain for 4-5 hours by which time they will have become water repellent.
- 4.8 Protect windows (including cars parked in vicinity), plants, aluminium window frames and any solvent sensitive materials and remove any splashes before the solvent 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 before the solution evaporates. Clean up tools and equipment in water.



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TECHNICAL DATA Continued

5.0 PRECAUTIONS

Silicone water repellents, including AQUELLUX S WB, are not waterproof coatings. They offer advantages and features that a coating doesn't, most notably, application without changing the appearance of the substrate. They are designed to protect vertical and inclined substrates from water/moisture absorption while allowing the substrate to "breathe" and therefore pass any trapped moisture back into the atmosphere. However, a silicone water repellent should not be used to treat very porous substrates and/or substrates exposed to rain and significant wind pressure without first testing the application for suitability under adverse conditions. In certain conditions, moisture and/or water may overcome the repellency of the water repellent, thereby penetrating into the substrate.

6.0 PACKAGING

4, 20 and 200 litres.



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