

# Strongbond Moisture Solution

## Technical Data Sheet

*Moisture Solution is a moisture proofer, densifier, hardener and curing agent for old concrete. It penetrates through the concrete slab up to 100mm. Moisture Solution is used to treat moisture problems and restricts moisture vapour emissions. Moisture Solution does not prevent adhesion of floor coverings to substrate. Moisture Solution can reduce hydrostatic pressure and can be effectively applied to positive or negative side of concrete structures.*

**PRODUCT DESCRIPTION:** Moisture Solution is a Colloidal Silica. It is a clear blue liquid. When it dries, it is clear. It is odourless and environmentally neutral, Zero VOC / VOS.

**APPLICATION AS A MOISTURE PROOFER OR DENSIFIER:** Prior to applying, anything that may hinder Moisture Solution ability to penetrate the concrete should be mechanically removed. Cracking and jointing should be dealt with using an approved method, however Moisture Solution should be applied prior to crack treatment. The concrete should be at least 28 days old before laying impervious coatings or floor coverings.

Moisture Solution can be applied by pouring and spreading with a soft broom or by a low-pressure spray unit with a fan spray nozzle. Only a single application is required, and it should penetrate in an hour. Apply at a minimum rate of 4sqm per litre. In hot weather conditions, mist wet the surface of the concrete with water and remove any puddles before the application. Start by applying Moisture Solution at the lowest point and broom puddles into the drier areas. Do not allow excess liquid to sit and dry on the surface. Any liquid that has not penetrated within an hour, remove it with a squeegee. If more product is needed, ensure to apply wet on wet.

Areas that are to be treated with Moisture Solution need to be partitioned during treatment and may be reopened immediately after treating. Mechanically grind to remove any contaminants purged from chemical reaction taking place that Moisture Solution creates in the concrete. Floor

coverings should not be laid within 24 hours from the application of Moisture Solution. The floor may then be prepared as per coating manufacturer specifications.

**APPLICATION AS A CURING AGENT:**

As a curing agent, Moisture Solution can be applied with a low-pressure non-atomizing, spray apparatus such as a pump-tank sprayer or mechanical cure slurry pump, or alternatively by flooding on. Moisture Solution is ideally applied to the newly poured concrete surface as soon as is practical following its surface finishing phase. Allow the concrete to adequately harden to avoid any imprints on the surface during application. Recommended minimum coverage rate as a cure method is 4sqm per litre.

**USED AS A MOISTURE PROOFER AND DENSIFIER:**

When Moisture Solution is applied to concrete, the slab will be integrally sealed, waterproofed and densified. This product will improve concrete of any age and will give it effective chloride ion which forms a barrier preserving embedded steel. Moisture Solution reduces significantly vapour transmission rate while maintaining the integrity of the concrete. Using this product increases surface abrasion resistance. When applied, Moisture Solution reacts with the lime in the concrete (Calcium Hydroxide) to form Calcium Silicate Hydrate. Moisture Solution will penetrate the concrete slab, the nano-sized particles will fill the pores of the concrete and forms a gel and therefore increases the hardness of the concrete and forming a breathable barrier. The barrier consists of pore sizes that are much smaller than concrete

micropores, therefore immensely reducing the presence of void which allows the concrete to breathe although sealed. This barrier generates no heat nor expansion pressures during the reaction and conversion from liquid to gel Calcium Silicate Hydrate is formed during the cement hydration process which is the same mineral compound that acts as a binder that results from mixing water with cement. During the hydration process, around 20% of the walkable Portland cement concrete is converted to lime. The lime has no structural value in the concrete.

Moisture Solution hinders internal existing corrosive activities, re-moving electrolyte availability, as it supplements, densifies, waterproofs, strengthens and internally detoxifies concrete without damage effect to external appearance or physical characteristics. After application, this product will improve the surface bonding ability. Moisture Solution addresses causes for potential early adhesive failure such as alkaline capillary moisture accumulation, saponification, laitance effect, etc. It also hinders leakage through concrete with or

without hydrostatic pressure for instance, reservoirs and tanks. Moisture Solution does not affect the surface quality of old or new concrete, it may be utilised for the improvement of all concrete regardless of whether auto traffic bearing or not. Such as driveways, carparks etc.

**USED AS A CURING AGENT:**

Moisture Solution can be used as a curing agent. It provides an alternative to the traditional concrete curing method, providing a cure same as or better than water curing. Moisture Solution provides concrete a premium cure producing great strength, surface hardness and waterproofness. The surface will be abrasion resistant, freeze damage resistant, dust resistant, acid / chemical resistant, etc. As a curing agent, this product will provide concrete with a permanent barrier containing pore sizes smaller than concrete's micro pores. It reduces porosity and consequently forcing gases such as radon to seek alternative ways to escape the concrete instead of passing through it. Moisture Solution leaves no surface residue to intervene with the bonding of the surface.

**PRECAUTIONS:**

- Mechanically grind the surface to allow the product to penetrate
- No laying floor coverings or coatings before the concrete is 28 days old
- Should be flushed with water and not be allowed to dry, if it comes in contact with glass it may etch, which is similar to other products such as fresh concrete
- Will make shiny aluminium dull, however it does not affect the integrity of the aluminium
- Always protect areas not intended for coverage
- Once dry, it can be difficult to remove from other surfaces
- Do not apply in cold conditions when the temperature is below 5°C
- We do recommend the use of a face mask during application as a best practice
- Following treatment, the surface should be ground to remove purged salts, sediments etc
- Must be stored above 8°C, do not allow to freeze
- For more information on the Data Sheets, please check [www.lookfloors.co.nz](http://www.lookfloors.co.nz)

**SOME PRODUCT ADVANTAGES**

- Permanently waterproofs concrete
- Provides a cure equal to water ponding
- Moisture Barrier for impervious floor coverings
- Compatible with most flooring & coatings systems
- Densifies & hardens concrete of any age
- Further restricts vapour transmission
- Preserves concrete's matrix & overall integrity
- Improves thermal resistance (R-Factor)
- Enhances tensile & compressive strengths
- Improves dusting resistance
- Improves acid / chemical resistance
- Retards efflorescence
- Stabilises concrete's pH levels
- Can be used on vertical or horizontal surfaces
- Minimum site disruption, walkable after 2 hours
- Reduces hydrostatic pressure
- Zero VOC & VOS content
- Environmentally friendly
- Flush or clean up with water

Technical Data	
Physical	Liquid
Colour	Clear-Blue
Odour	None
Specific Gravity	1.10
PH	+/- 11.5
Flammability	None
Toxicity	None
VOC / VOS Content	None
Surface Bond Quality	Excellent
Paint Ability	Excellent
Clean-up Solvent	Water
Environmental Impact	None/Neutral
R-Factor Increase	Up to 20%
Chloride Screen ability	Excellent
User Status	Friendly