

# Organosilane Based Reactive Waterproofing Technology



ZycoSil+ is a reactive organosilane based water proofing agent that seals upto nano-pore level. It has an ability to penetrate upto 2 mm deep inside the substrate and becomes a permanent integral part of the structure. It reacts and converts the hydrophilic chemical groups of the substrate into hydrophobic groups. ZycoSil+ is water dilutable, safe, sprayable and easy to apply. ZycoSil+ is non-leachable, UV resistant, breathable and does not present peel-off issues unlike conventional polymer coatings.

## FEATURES

- ✓ Organosilane Technology
- ✓ Reactive, Penetrative & Permanent
- ✓ Easy to Apply
- ✓ Breathable & UV Resistant
- ✓ Protects against Algae and Fungal Growth
- ✓ Waterproofs Vertical and Horizontal Surfaces
- ✓ Protects Substrate from Deterioration due to Weathering

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## DESCRIPTION

ZycoSil+ is a 100% Reactive Organosilane Nano-Sealer.

When applied on a siliceous substrate, it penetrates up to 2 mm inside the substrate and becomes an integral part of the structure. It converts the nature of the substrate from hydrophilic to hydrophobic. ZycoSil+ is water dilutable, safe, sprayable and easy to apply. ZycoSil+ acts like a 'skin' up to 2 mm deep for your building as against a polymer or paint film that acts like a 'Band-Aid' on your Building. The peel-off issues are eliminated as ZycoSil+ is non-leachable & UV-Resistant. It has a dual property of preventing of ingress of liquid water while allowing moisture vapours to escape.

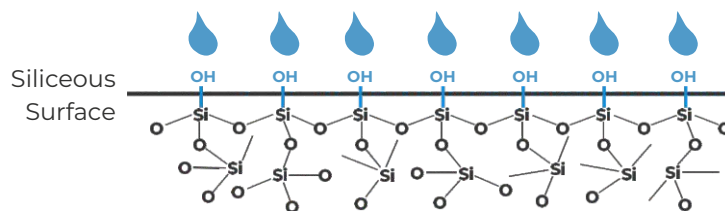
## MECHANISM OF ACTION

ZycoSil+ penetrates up to approximately 2 mm into the substrate and converts the siliceous surface rich with hydrophilic silanol groups to hydrophobic alkyl siloxane groups as per the reaction below:



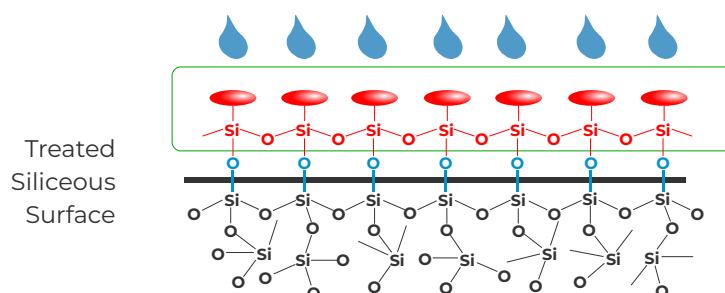
Complete drying is critical to complete the reaction and achieve water resistance.

Surface tension of the hydrophobic surface created by ZycoSil+ will ensure that water remains on the surface & does not enter into the nano pores of cementitious surface due to surface tension effects.



-OH groups make surface very hydrophilic (water loving):

High water permeability leads to water ingress in the building through seepage and deterioration of the plaster/concrete substrate.



Molecular level reaction (hydrophobic groups):

ZycoSil+ reacts upon contact with the surface and creates a permanently water repellent layer on its surface. The surface is subsequently rendered impermeable to water ingress.

## SPECIFICATIONS

Form: Light Pale Yellow Clear Liquid  
Viscosity @ 25°C: < 100 cps  
Specific Gravity: 0.91 ± 0.01  
Flash Point: 12°C  
Odour: Low Odour  
Solubility (in Water): Easily Soluble  
pH: Approx. 6 ± 1  
Dilutant: Clean Potable Water TDS < 1000 ppm  
pH - 6.5 to 7

### Coverage

Horizontal: 24-40 m<sup>2</sup> (260-430ft<sup>2</sup>)  
Vertical: 60-100 m<sup>2</sup> (645-1075 ft<sup>2</sup>)  
Actual coverage may vary as it depends upon permeability and absorption characteristics of the substrate.

## APPLICATION METHOD

- The substrate should be cured, dry and free from internal voids (honey combs).
- If honey combs are present, drill a hole and inject ZycoSIL+ solution 1 : 20 in water. Allow it to dry and then inject a suitable grout to fill and close the hole.
- For substrates with oil, grease, fungal growth etc., clean and dry the surface thoroughly before application.
- ZycoSIL+ should be diluted with potable water (TDS <1000 ppm) to obtain a clear transparent solution.
- The diluted solution should be liberally sprayed with low pressure until flood saturation is achieved.
- Flood saturation on horizontal surfaces means no further absorption of ZycoSIL+ even after 5 minutes of saturation.
- On vertical surfaces apply ZycoSIL+ from bottom to the top to eliminate drip-mark formation.
- To achieve full saturation on vertical surface, after repetitive light spray (3-4 times after 30-45 seconds) the solution should drip down the wall.
- Both applications are best done at a temperature between 10°C (50°F) to 35°C (95°F). It is best to do the application during the morning or evening hours to avoid peak heat of the Sun.
- For doing any Screeding / Plastering / Tiles / Paint Work on the treated surface, ZycOPrime+ (Acrylic Bonder) must be added to the ZycoSIL+ Solution during preparation in the recommended ratio of 2 parts of ZycOPrime, 1 part of ZycoSIL+ & 20 parts of water.

### PACKING

100 & 250 ml.  
1, 5 & 20 ltrs.

### STORAGE

Store Between +5°C and +45°C.

### SHELF LIFE

4 years if stored as recommended.

## ABOUT ZYDEX

Established in 1997, Zydex is a specialty chemicals company with the purpose of innovating for sustainability.

Beyond construction products, Zydex offers a diverse set of chemical technologies for the textile, agriculture and pavement industries. We were recently recognised as one of the 25 Most Innovative Companies in India by the Confederation of Indian Industry (CII).

### Sustainable Green Chemistry

Zydex is deeply committed to sustainable chemistries that ensure a greener future for everyone. Our commitment has made us a pioneer in introducing non-polluting and non-hazardous technologies that conserve, protect and enhance the environment. Pursuing chemical innovations that would mean a greener, purer and more resource renewable world is our passion. Our technologies have been recognized for their contribution to sustainability and globally accepted.



*25 Most Innovative Companies of India*

## GLOBAL PRESENCE

