

## AQUASIL-TECH

### Eco-Friendly, Water-soluble Hydrophobic Water Repellent-based on Nano-Organo Silane Technology for Concrete and the Other Porous Substrates.

#### DESCRIPTION

AQUASIL-TECH is clear, penetrating, breathable water repellent for use on brick, concrete masonry units and some natural porous substrate e.g. limestone, marble, stone, stucco, clay tile, plaster, sand, soil, and aggregates. A monomeric OrganoSilane that is soluble in water and provides long-term protection (more than 20 years) and high performance water repellency by chemically reacting with the substrate. It has a Nanoparticle size to achieve deep penetration inhibiting water absorption into the substrate and once cured it does not alter the appearance of surfaces and being non-film forming will allow the substrate to breathe. It prevents water and waterborne contaminants from entering the substrate and causing premature deterioration, and by doing so.

AQUASIL-TECH reduces such problems as efflorescence, leaching, acid rain deterioration, scaling, dirt buildup, staining and corrosion of reinforcing steel. It can be used on old and new structures.

It meets the requirements of the following standard:

EN 1504-2

#### FIELD OF APPLICATION

Application includes preventing water damage in buildings, parking decks, garages, bridge and coastal structures, including exposed reinforced concrete to attack by chloride ions and water intrusion.

#### ADVANTAGES

- Excellent resistance to water intrusion
- High resistance to wind-driven rain
- Breathable system
- Deep penetration into the substrate
- Reduced efflorescence
- No change in surface appearance
- Resistance to UV deterioration
- No blushing, peeling or yellowing
- High resistance to alkali attack
- Keeps substrate cleaner
- Non film forming
- Excellent resistance to chloride ion ingress
- Ready to use & easy to apply
- Suitable for many substrates



- Helps to prevent efflorescence
- Long service life
- Green System

## SURFACE PREPARATION

Masonry and concrete must be allowed to cure for a minimum of 28 days. All repointing must be completed and allowed to cure for at least 3 days. Patching materials, caulking, sealing materials and traffic paint must be fully cured before applying AQUASIL-TECH.

All surfaces must be cleaned to remove all traces of dirt, dust, efflorescence, mold, salt, grease, oil, asphalt, laitance, curing compounds, paint, coatings and other foreign materials. Acceptable surface cleaning methods include shotblasting, sandblasting, waterblasting and using chemical cleaners. Check with your AQUASILTECH representative to verify that surface preparation is adequate.

Previously painted surfaces must have all of the existing coating removed to allow penetration into the surface. Where surfaces have been water blasted or washed down to remove contamination they must be allowed to dry out completely before application is commenced otherwise impregnation will not occur. Cracked or damaged areas must be repaired and sealed prior to application of materials.

## APPLICATION

All equipment and containers must be clean and dry. After use they can be cleaned with any organic solvent alcohol or thinners. Diluted AQUASIL-TECH shall be applied using low pressure (15-25 psi) pumping equipment with fan type spray nozzles. AQUASIL-TECH should be diluted with water (<1000 TSD). For the horizontal surface 1 part AQUASIL-TECH is diluted with 5 parts of water. For the vertical surface 1 part AQUASIL-TECH is diluted with 20 parts of water. For the area where annual rain fall exceeds 2000 mm (80 inches), 1:7 diluted ratio is used for both of the surfaces. The applicator shall provide, install and maintain suitable traps, and/or drop cloths to protect against damage caused by spillage or heavy overspray. Protect all plants and vegetation from overspray. Protect all materials containing asphalt from overspray. Protect all coated glass materials. (Although AQUASIL-TECH will not leave a residue on glass, the carrier may react with plastic coatings on the structure, glass or surrounding property). A flood application of the material is required on horizontal surfaces; the liquid material should pond on the surface at least 5 seconds before being absorbed. On vertical surfaces, the liquid material should run down 6-8 inches below the spray pattern. It is best on vertical surfaces to apply spray from the bottom to the top of the structure so that you can determine which areas have been treated. On horizontal surfaces, traffic must be kept off the treated surfaces until the solution has completely dried. The contractor shall provide adequate ventilation during the application and shall follow all safety precautions.



## TECHNICAL PROPERTIES

Particle size (nm)	3-6
Mix ratio (product:water)	Concrete: 1:5 Wood: 1:2
Application temperature (°C)	10-35
Coating (m <sup>2</sup> /kg)	20-30
Average Depth of Penetration	Up to 5 mm depending on the porosity
Solubility	Mixable with water, soluble in Methanol & Ethanol.

## PACKAGING

5 lit Bottles

## STORAGE & SHELF LIFE

The shelf life is 12 months if unopened, stored free from frost, moisture and direct sunlight. Keep in the temperature range between +15 °C and +35 °C.

## HEALTH & SAFETY

This material in its concentrated form is flammable. Do not smoke or allow use of naked flames when product is in use or drying.

AQUASIL-TECH is not recommended for surfaces subjected to hydrostatic pressure.

Caution: Do not allow water to contaminate equipment or material. Do not apply if temperature is below 5°C or over 35°C. MSDS is available at ABADGARAN website.

Note: Care should be taken not to use AQUASILTECH in enclosed spaces without ensuring adequate ventilation.

## TECHNICAL SERVICE

The ABADGARAN INTERNATIONAL GROUP Technical Department is available to assist you in the correct usage of our products and its resources are at your disposal entirely without obligation.

