

AQUASIL 100

Water-based Silicon Impregnation Sealer

Product Description:

AQUASIL 100 A low-odor, water-based impregnation sealer that gives invisible, breathable water repellency to concrete. Easy to spray or brush, and flexible enough to be dosed into renders, AQUASIL W 100 reduces water uptake, limits salt transport and prolongs surface life — ideal for precast units, facades, driveways and exterior renders. Promote as “breathable protection with low VOC and sprayable application” in spec sheets and sales pitches.

Features & Benefits

- Penetrating water-repellent for concrete, mortar, plaster and mineral facades.
- Reduces water absorption and ingress of chloride/salts while allowing vapor breathability.
- Water-based → low odor, safer for enclosed jobsites and applicators.
- Can be applied as surface sealer (two coats) or dosed into plaster/cement mixes to impart hydrophobicity.
- Improves durability of floorings, renders and masonry — cost effective and easy to use.

Uses & Applications

- Exterior and interior concrete, sidewalks, driveways, precast units, brick, natural stone, cement plaster (render).
- As a surface applied water-repellent (spray/brush/roller) — normally two coats.
- As an admixture for cementitious plasters or skim coats to enhance water repellency and reduce blistering — use within recommended dosage range and always trial first.

Technical specifications :

Property	Value
Color	Transparent – No film formed
Appearance	Milky liquid -
Density @ 25°C	1.01 ± 0.03 g/cm³



Instructions for use:

A. Surface Sealing

1) Surface Preparation:

- Substrate must be clean, sound, dry or surface-damp (no standing water), free from oil, laitance, curing compounds, loose paint, salts or efflorescence.
- Repair cracks/defects with appropriate repair mortars prior to sealing. Allow repairs to cure.
- For very porous or dusty substrates, clean by pressure wash and allow to dry.

2) Mixing

- Stir gently; do not shake vigorously (avoid foam). Use low-speed mixer if needed.

3) Application method

- Spray (airless): best for even penetration — use low pressure and overlap passes.
- Brush / Roller: suitable for small areas or verticals.
- Apply two coats: wet on wet or allow 20–40 minutes between coats depending on temperature and substrate (do not wait until fully dry to get best penetration of second coat into substrate).
- Avoid puddling; do not over-apply in one pass.

4) Coverage rate

- Smooth concrete / dense surface: 8–12 m² per Kg per coat.
- Normal concrete / medium porosity: 6–10 m² per Kg per coat.
- Very porous substrates: 2–4 m² per Kg per coat.
- Expect two coats for best repellency — actual consumption depends on porosity; always measure on trial area.

5) Drying / recoat

- Touch dry: 30–120 minutes (temperature & RH dependent).
- Allow 24 hours for full performance before service in wet conditions (accelerates in warm dry weather).

B. Mixing with Cement / Plaster

AQUASIL 100 may be used as a hydrophobic additive in cementitious plasters or renders to improve water repellency of the cured render. Use only after trials.

1) General recommended starting dosages (trial basis)

- Spray-on admixture approach (recommended for even distribution): pre-dilute with mix water and replace 0.5–2.0% by weight of cement (i.e., 0.5–2.0 kg AQUASIL W 100 per 100 kg cement) as a starting range.

- Practical alternative: 0.5–2.0 Kg **AQUASIL 100** per 100 kg cement.
- For thin skim coats or tile adhesive modifiers use the lower end (0.5%); for exterior renders in aggressive wet climates use upper end doses and validate.
- Add **AQUASIL 100** to part of the gauging water, mix well, then mix into cement/sand as usual. Do not add undiluted directly onto dry cement.
- Maintain slump and workability by adjusting water and/or plasticizer — silane may slightly affect workability.
- Cure as normal — allow full strength before water exposure.
- Always perform adhesion and permeability tests on mock-ups.

2) Warnings

- Excessive dosage can reduce bond strength and alter setting. Always lab-test and field-trial.
- When using with polymer-modified mortars, check compatibility.

Packaging & Storage

- **Packaging:** 1 Kg, 5 Kg, 20 Kg, 180 Kg (custom packaging on request).
- **Storage:** Store in original sealed containers, protected from frost and direct sun. Keep between 5–35 °C. Keep from freezing.
- **Shelf life:** 12 months unopened; older batches should be assessed.

Safety / Handling

- Non-flammable (water-based). Use gloves and eye protection. Avoid skin contact.
- If splashed to eyes: rinse thoroughly with water and seek medical attention.
- For full details provide SDS (Safety Data Sheet) to customers.
- Dispose according to local regulations.

Limitations & Advice

- Not a substitute for waterproofing membranes on fully submerged or hydrostatic conditions. Designed for repellency, not to stop structural leaks.
- Does not block cracks >0.5 mm — repair before application.
- Performance depends on substrate porosity, curing, application rate and environment — always test.

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