

Sequentially applied
horizontal barrier



AQUAFIN®-i380

 **SCHOMBURG**

AQUAFIN®-i380 is a guaranteed solution for sequentially applied horizontal barriers. This new silane-based injection cream requires no pressure when applied to prevent rising dampness in masonry works by inducing a “hydrophobic” property in the injected substrate.

AQUAFIN®-i380 functions at moisture saturation levels up to 95% when tested in accordance with WTA work sheet 4/4/04 (Injection of Masonry Works Against Capillary Rising Dampness).

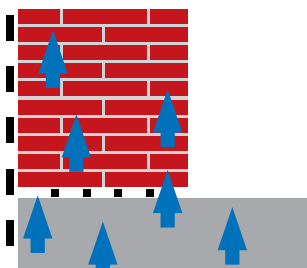
Classic “silicifying” injection products can only be applied with pressure when moisture saturation levels exceed 60% whilst **AQUAFIN®-i380** is entirely effective when applied without the use of pressure even when saturation levels reach 95%.

How does **AQUAFIN®-i380** work?

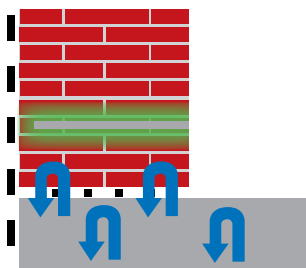
Due to its special composition, the molecular size of the active ingredient is much smaller than classical products. It also does not react with water, but solely with the substrate. The “hydrophilic nature” (great affinity for water) of the active ingredient means quicker dispersion in the capillary water and eventually leading to the so-called “self-injection” property, achieving 100% saturation of the pores.

After reacting with the substrate, the capillary walls become hydrophobic and rising water or dampness due to osmotic pressure (absorption of water in the capillaries) is prevented leading to the eventual drying out of the substrate which also becomes water repellent.

Untreated
masonry work



Masonry work treated
with **AQUAFIN®-i380**



Application without pressure

The distance between bore holes as well as their positioning (single or double row) is determined by the absorption of the masonry work. The closer the bore holes are together, the greater the degree of success. Electro-pneumatic drills, which operate as free from vibration as possible, are suitable for boring the holes. Where walls are thicker than 60 cm, we recommend injection under pressure with **AQUAFIN®-F**.

As a rule, 12 mm diameter holes or greater are drilled at 10.0 cm to 12.5 cm spacings (axis-to-axis) and at an inclined angle above 0° and up to 45° measured to the horizontal plane. The depth of the holes should be approx. 2 cm shorter than the masonry work thickness. Ensure that the positioning of the bore holes penetrates at least one horizontal masonry joint (or two for thicker masonry works). With substrates of low or no absorption it is recommended that the bore holes are positioned on two levels within the joints. The height difference being less than 8 cm. Thoroughly remove dust or debris resulting from the drilling before commencing with the injection works. This is to ensure the greatest uptake of the active ingredients into the masonry works. Injection must be carried out with a suitable hand-operated barrel gun with an appropriate attachment.

Slowly squeeze **AQUAFIN®-i380** out into the bottom of the bore hole - whilst gradually moving the injection tube out to ensure the bore holes are completely filled. Plug the bore hole openings with **ASOCRET-BM**.

The advantage of using **AQUAFIN®-i380** is its creamy consistency and that it does not flow out or fill unseen voids like traditional low viscosity liquid products when applying to horizontal holes or where there is inhomogeneity.



Removal of render from damaged areas



Marking out the bore hole spacing



Drilling the holes



Removing dust & debris from after drilling



Injecting the cream-consistency **AQUAFIN®-i380**

Properties and Advantages



- Ready to use
- Solvent-free
- Hydrophobic
- Excellent penetration
- Prevents "capillary water" migration
- Simple and effective application
- Low consumption
- Non-hazardous with low emissions
- WTA approved; even when moisture saturation levels reach 95%
- Highly concentrated (80% active ingredient content)
- Excellent dispersion
- Creamy consistency prevents flow into cracks, cavities or voids
- Applied without pressure; simply extrude from a barrel type gun
- May also be mechanically applied using low pressure
- No dilution or pre-mixing necessary
- Quantities easily calculated

Areas of Application

For producing sequentially applied horizontal barriers in accordance with the WTA work sheet 4-4-04/D "Injection of Masonry Works Against Capillary Rising Dampness", against rising dampness up to 95 % moisture saturation in masonry work constructed from e.g. brick, clinker, lime-sand blocks, natural stone including joints.

Substrate Preparation

Remove old damaged render, paints or coatings from the substrate up to a height of 80 cm above the neighbouring area of damage either visibly or through examination. Rake out crumbly pointing to a depth of 2 cm deep and mechanically clean the area. To replace masonry joints we recommend **THERMOPAL®-GP11**. Where using low pressure equipment, we recommend blocking the injection area with **AQUAFIN®-1K**.

Technical Data:

Basis:	Silane
Consistency:	creamy
Colour:	white, transparent once dry
Specific gravity:	approx. 0.9 g/cm ³
Active ingredient content:	approx. 80 % by weight
Substrate / application temperatur:	+5 °C to +30 °C
Packaging:	12 x 550 ml sausage/box and 5 l packs
Storage:	12 months in original unopened packs
Consumption:	refer to valid Technical Data Sheet

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