

AQUAFIN®-IC Brochure

...waterproofs concrete in depth

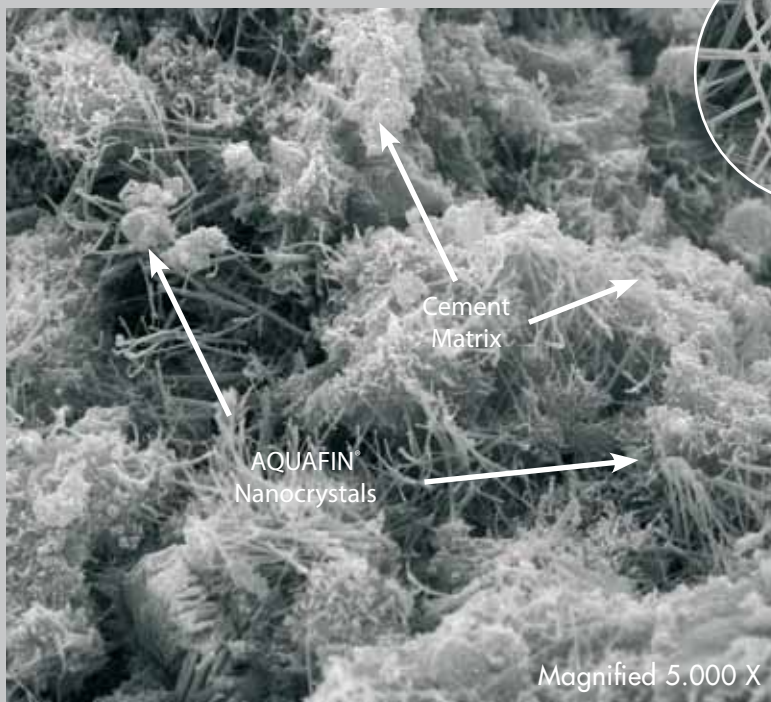
AQUAFIN®-IC is a unique one-component, penetrating waterproofing system. Based on cementitious materials, AQUAFIN®-IC contains chemicals, that penetrate into the concrete surface making the concrete itself part of the waterproofing. The waterproofing properties stay intact, even if the coating is partially removed or small cracks develop after the application.

Due to its high resistance to hydrostatic pressure (tested up to 130 m [200 psi] positive and negative side), AQUAFIN®-IC is the perfect waterproofing material for large concrete structures such as water tanks, water catchment basins or wastewater treatment plants. Other typical applications are in parking structures, tunnels, elevator pits, manholes and waterproofing of below grade foundations and walls.



Capillary/Crystalline Waterproofing

Magnified AQUAFIN®-IC nanocrystals



Magnified picture (10.000 X) of AQUAFIN®-IC nanocrystals.

Treated concrete becomes watertight as crystalline fibers fill the capillary voids.

penetrates into the concrete...

4. Waterproofing

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Advantages:

- Self healing (static cracks up to 0,4 mm)
- Waterproofing properties stay intact, even if the coating gets damaged
- Easy to apply
- Low consumption / economical
- Fast setting and hardening
- Minimal discoloration
- Permanent



Applications:

AQUAFIN®-IC may be used on all new or old structurally sound concrete surfaces not subject to movement. It is also suitable for concrete masonry or as a dry shake on fresh concrete slabs.

Typical areas of application are:

- Potable water tanks
- Waste water treatment plants
- Tunnels
- Elevator pits
- Manholes
- Foundations
- Below grade waterproofing



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Application:

AQUAFIN®-IC, grey or white can be applied by brush or appropriate spray equipment. It may also be applied as a dry shake on fresh concrete slabs.

AQUAFIN®-IC is simply mixed with water with a slow moving drill. The working time is approximately 30 min. at +23°C.

Supplemental Products:

- FIX 10-S
30 sec. plug cement.
- ASOCRET®-IM
(USA: MORTAR-IC)
Crystalline sealing and repair mortar.
- ASOCRET®-RN
(USA: MORTAR-40)
Polymer modified structural repair mortar.

We recommend the use of AQUAFIN®-2K/M in combination with our joint tapes for applications where static and dynamic crack bridging capabilities are required.

AQUAFIN®-1K for negative side waterproofing of brick and CMU substrates.



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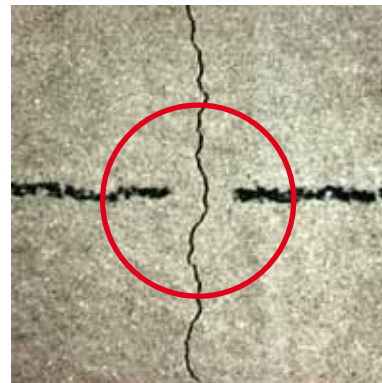
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The Chemistry of AQUAFIN®-IC

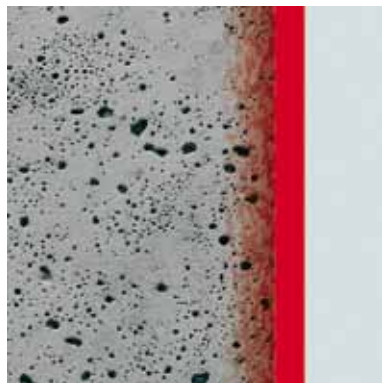
The pictures below illustrate the basic behavior of **AQUAFIN®-IC** on a concrete substrate:

The following photos illustrate the crack-sealing capabilities of **AQUAFIN®-IC** for static (non-moving) cracks:

Untreated concrete is a porous system, which is prone to water penetration.



Application: **AQUAFIN®-IC** (red) is applied to the concrete surface. The active ingredients of **AQUAFIN®-IC** start to penetrate into the capillary pores.



Inside the capillary pores the chemicals react with the free lime and moisture forming insoluble crystals. The mechanism moves further into the concrete, sealing the pores.



Result: **AQUAFIN®-IC** is not only a coating, it becomes an integral part of the concrete!

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