

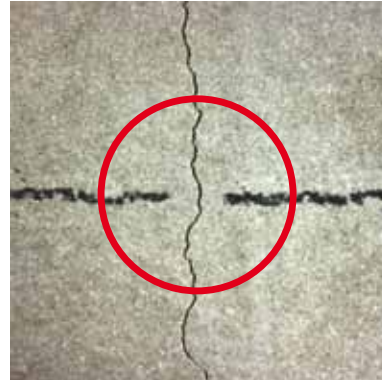
## The Chemistry of AQUAFIN®-IC

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

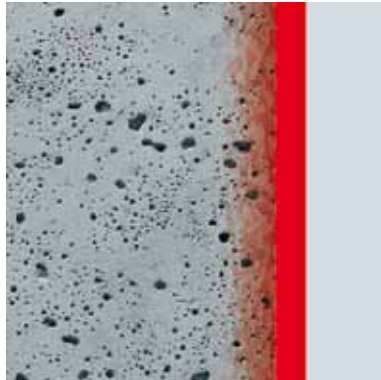
Untreated concrete is a porous system, which is prone to water penetration.



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



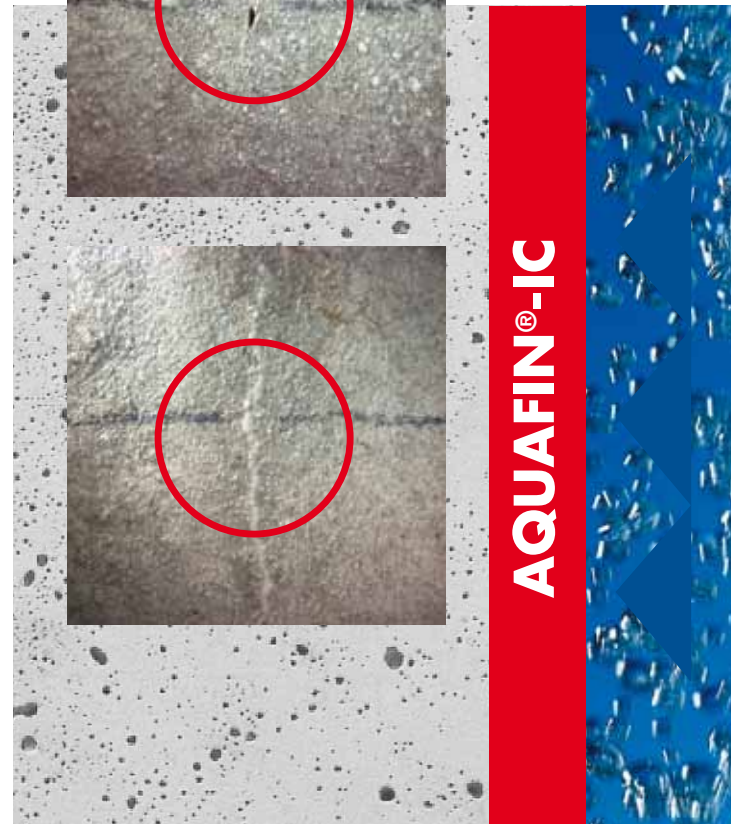
Application: **AQUAFIN®-IC** (red) is applied to the concrete surface. The active ingredients of **AQUAFIN®-IC** start to penetrate into the capillary pores.



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!



AQUAFIN Inc. plant in  
Elkton, MD, USA

### Production and quality control:

**AQUAFIN®-IC** is produced in Elkton, MD, USA.

AQUAFIN, Inc. is a member of AQUAFIN International GmbH.

Other facilities are located in Egypt, Germany (2), India, Kazakhstan, Mauritius, Pakistan, Poland, Qatar (2009), Slovakia, Switzerland & Turkey.

All AQUAFIN products go through effective quality control in the QC-laboratories at the plant site.

**AQUAFIN**

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Various & Accessory Products

## Capillary/Crystalline Waterproofing for concrete structures



www.aquafin.net

**AQUAFIN**



...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.

AQUAFIN®-IC is approved for potable water applications as per NSF/ANSI 61.



Advantages:

- Ideal for potable water, NSF/ANSI 61 certified (no degradable organic ingredients)
- Self healing (static cracks up to 0.4 mm · 1/64")
- Waterproofing properties stay intact, even if the coating gets damaged
- Easy to apply
- Low consumption / economical
- Fast setting and hardening
- Minimal discoloration
- Permanent
- VOC = 0 (0 g/l)



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



Application:

AQUAFIN®-IC, gray 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 (+73°F).

Supplemental Products:

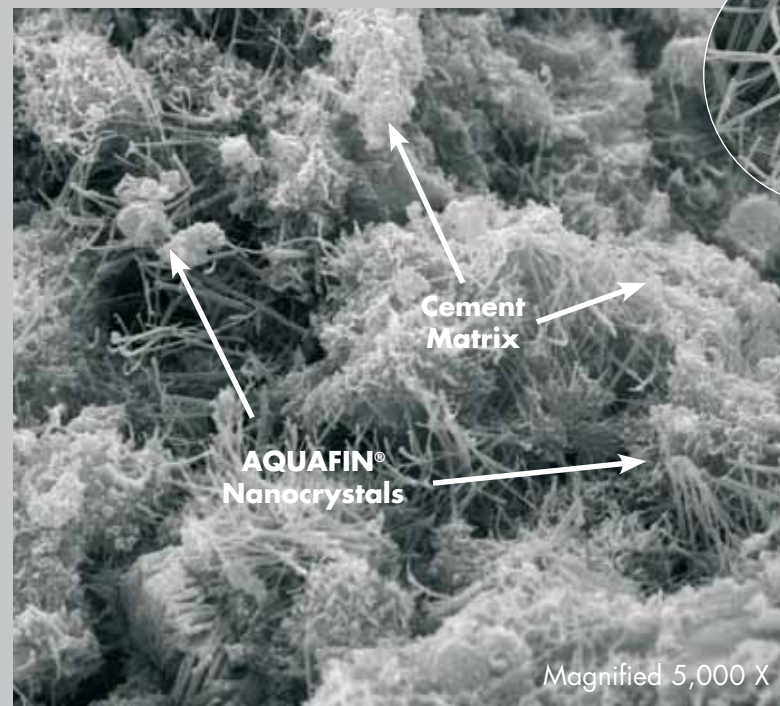
- **FIX 10-S**  
30 sec. plug cement.
- **PLUG-IC**  
Fast setting crystalline waterstop and patching mortar. NSF/ANSI 61 certified.
- **MORTAR-IC**  
Crystalline sealing and repair mortar. NSF/ANSI 61 certified.
- **MORTAR-LN**  
Universal waterproofing, structural repairing & lining mortar with hydrophobic properties. NSF/ANSI 61 certified.
- **MEGA-MORTAR-IC**  
Fiber reinforced, crystalline enhanced, structural patching mortar.
- **MORTAR-40**  
Polymer modified structural repair mortar. NSF/ANSI 61 certified.

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.



Magnified AQUAFIN®-IC nanocrystals



Magnified picture (10,000 X) of AQUAFIN®-IC nanocrystals.

Magnified 5,000 X

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

penetrates into the concrete...

AQUAFIN®-IC

AQUAFIN®-IC