

Building Product Systems

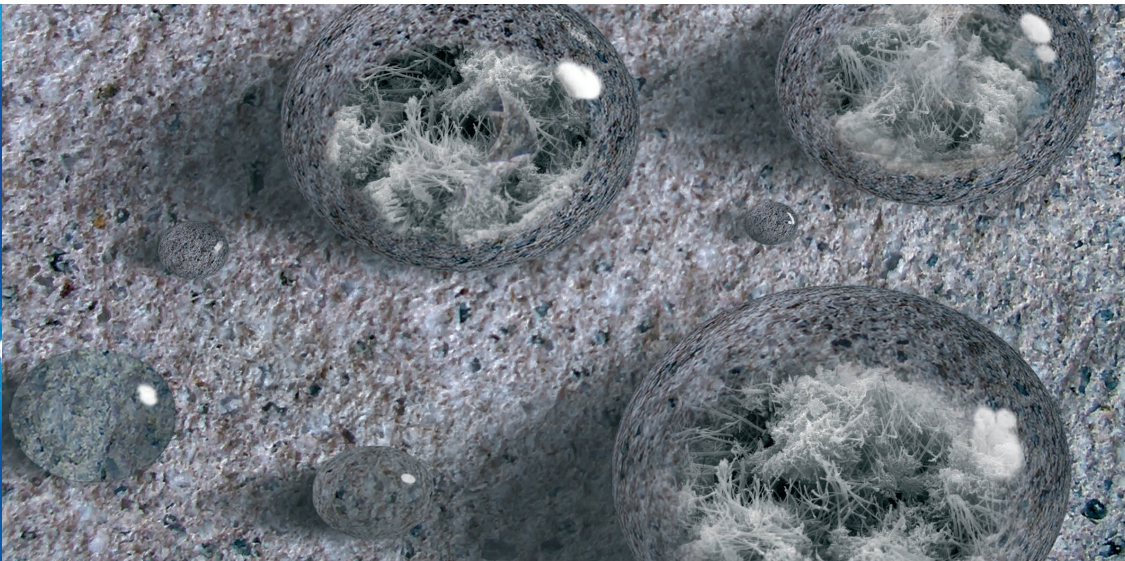
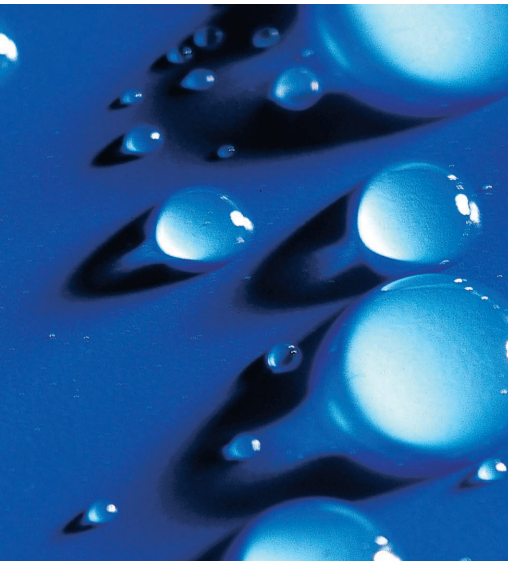
**Waterproofing &  
Concrete Restoration**

Decorative Coatings

Moisture Vapor Remediation &  
Flooring

Injection Grouting

**Liquid Crystalline  
Waterproofing Admixture**  
for Concrete Structures



Think Globally. Act Locally.

# The next generation of integral waterproofing admixtures

AQUAFIN®-IC-ADMIX is the world's first liquid crystalline waterproofing admixture for concrete.

AQUAFIN®-IC-ADMIX based on innovative crystalline technology which reacts with moisture and free lime, creating millions of nanocrystals. The crystals grow throughout the concrete matrix, sealing the voids and making the concrete structure waterproof yet breathable.

Unlike powder admixtures, AQUAFIN®-IC-ADMIX completely eliminates the risk of clumping, and ensures even distribution of the waterproofing throughout the concrete structure. It can be added to concrete during the batching process at the concrete plant or at the construction site to a ready-mix truck with full mixing capabilities.

AQUAFIN®-IC-ADMIX becomes a permanent, integral part of the concrete, extremely resistant to high hydrostatic pressure. In addition to waterproofing, it significantly increases the freeze-thaw resistance of concrete, while protecting the reinforcement from the corrosive effects of moisture.

AQUAFIN®-IC-ADMIX substantially reduces the amount of time and labor associated with applying traditional waterproof coatings, making it a perfect waterproofing solution for large concrete structures.

## Advantages:

- Protects rebar against corrosion
- Self healing of static cracks
- Does not affect bond of subsequently applied coatings
- Easy to mix with concrete, liquid – no risk of clumping
- Breathable – not a vapor barrier
- NSF/ANSI 61 certified for potable water
- No VOC's - environmentally friendly



AQUAFIN®-IC-ADMIX added onsite and poured in Havre de Grace, MD



AQUAFIN®-IC-ADMIX added onsite for gunite application in Denver, CO



A large foundation wall and slab project done with AQUAFIN®-IC-ADMIX



Floating concrete docks in Hamburg, Germany's harbor poured with AQUAFIN®-IC-ADMIX modified concrete

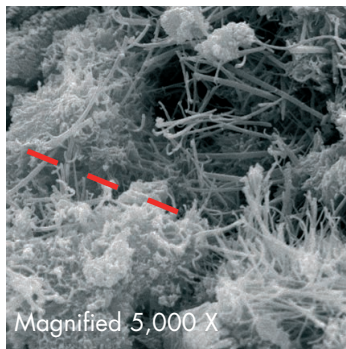
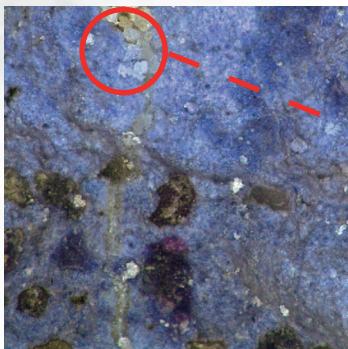
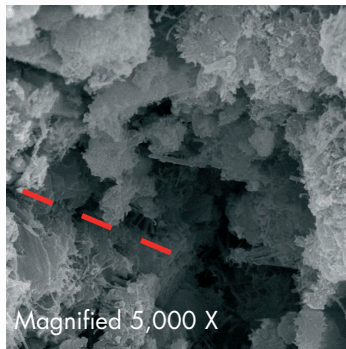
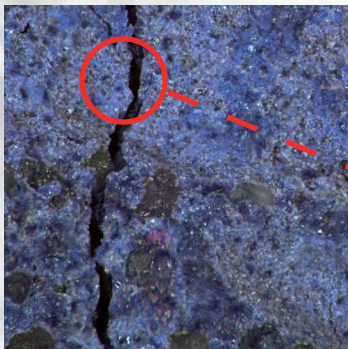
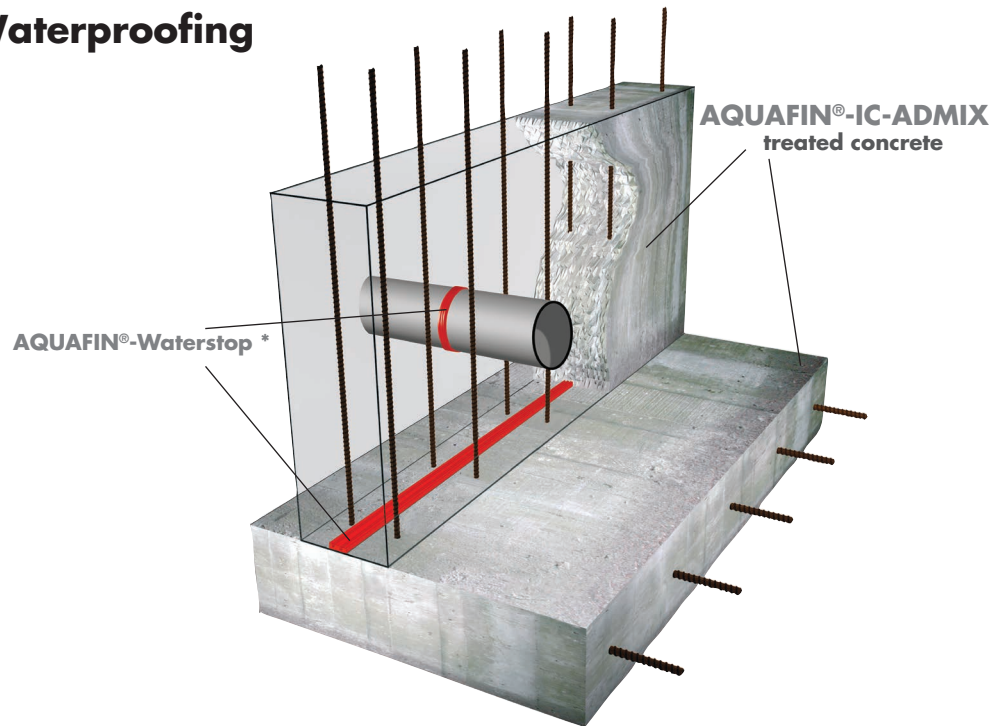


## Integral Building Envelope Waterproofing

By taking a complete systems approach, it is easy to seal the entire building envelope in an efficient manner. Combining waterproof concrete with the right joint details provides designers with multiple options of delivering dry structures.

Cost saving designs are achieved by eliminating the use of traditional waterproofing membranes; however, when special conditions require subsequent coatings, the treated concrete can be coated with a variety of products including waterproof coatings and architectural or elastomeric finishes.

\* AQUAFIN®-Waterstop is a strip applied hydrophilic rubber swelling waterstop for use in all kinds of cast-in-place concrete construction joints, as well as steel, concrete and thick walled PVC pipe penetrations. When exposed to water, the rubber expands, creating a compression seal within the joint or around the pipe penetration, blocking the passage of water.



As water enters a static crack in concrete, it is sealed due to the crystalline growth promoted by the chemistry within AQUAFIN®-IC-ADMIX.

A before and after view into the crack after the chemical reaction has occurred, clearly shows the AQUAFIN nanocrystals.

## Active crack sealing

As the chemistry within AQUAFIN®-IC-ADMIX seals the capillary pores within the concrete, the same reaction occurs within static shrinkage cracks (up to 1/64" - 0.4 mm).

As water finds its way into the cracks, the crystalline reaction is activated, forming nanocrystals within the crack which seals it and prevents further flow of water.

During a comprehensive trial, concrete cubes were created using AQUAFIN®-IC-ADMIX. Cracks were created in the cubes, which were then placed into testing equipment and subjected to constant water pressure.

All cubes made with the AQUAFIN®-IC-ADMIX displayed an automatic crack "self sealing" effect of cracks from 0.2 to 0.4mm within a reasonable time frame. In contrast, the cracks in the control cubes (which were created without any additives and subjected to the same testing) did not display a reduction in water penetration rates or "self sealing" of cracks.



**AQUAFIN Inc.** plant in  
Elkton, MD, USA

## Production and quality control:

**AQUAFIN®** powder and liquid products are produced in Elkton, MD, USA and Riviera Beach, FL, USA.

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

Other facilities are located world wide.

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



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