CRYSTALLINE WATERPROOFING

- THE LEADER ONE STEP AHEAD -
HOW CORMIX CRYSTALLINE WATERPROOFING WORKS

Concrete is a porous material containing pores, capillaries, micro and macro cracks. Water is able to penetrate the concrete damaging the cement paste and reinforcement. The durability and the life span may be severely compromised. Cormix crystalline waterproofers are formulated to react with unhydrated cement particles, calcium hydroxide and other byproducts of cement hydration to create insoluble crystals that prevent water penetration lowering the concrete’s porosity whilst allowing it to breathe.

Cormix surface applied materials move through the capillaries and cracks via osmosis and Brownian movement whilst the admixtures when mixed throughout the concrete create totally watertight concrete. Should water reenter the concrete dormant chemicals reactivate to seal the concrete, this catalytic reaction goes on throughout the life of the concrete.

ADVANTAGES OF CORMIX WATERPROOFING BY CRYSTALLISATION

Cormix surface applied crystalline waterproofers unlike surface applied membranes become an integral part of the concrete preventing water ingress into the concrete structure. Advantages include:

- Permanent it lasts the life of the structure.
- Penetrates deep into the concrete sealing cracks and capillaries up to 0.5 mm.
- Improves the chemical resistance of cement paste as well as waterproofing.
- Reactivates through life of structure.
- Cannot be damaged by backfilling.
- Economical no protection boards required and speeds up construction.
- Lower cost than liquid applied waterproofers and sheet membranes.
- Can apply to negative or positive side.
- Non toxic suitable for contact with drinking water.
- Eco friendly and sustainable adding to the value of structures.
- In application unaffected by moisture.
- No seams, joints, overlaps to worry about.
- More than a waterproofer enhances the concretes durability and resistance to carbonation, sulphates, chlorides and salt water.
- Multi versions: mix in the concrete, apply to dry concrete as a liquid and wet as a slurry, dry shake below slabs or shake on to slabs surface and power trowel in.
**ADDITIONAL ADVANTAGES OF CONCRETE ADMIXTURES**

- Mixed throughout the whole concrete to provide total protection.
- Speeds up construction as no additional waterproofing trades are required on site.
- Reduces in packaging and waste.
- Easy to dose in liquid form through existing admixture equipment (powder available too).
- Available with corrosion inhibitor incorporated to protect reinforcement. Cormix takes advantage of its construction chemicals know-how to provide a range of crystalline waterproofer incorporating other technologies with due regard for the environment using environmentally friendly know-how.

Corrosion inhibitors incorporated in CORMIX H²O STOP + Cl provide double protection to cement paste and reinforcement.

Cormix crystalline waterproofing is used to provide lifetime solutions with permanent waterproofing even under high hydrostatic pressure whilst giving other benefits of reducing the potential for chemical attack to cement paste.

**TYPICAL AREAS OF APPLICATION**

Cormix products have been used in a multitude of projects worldwide including:

- Waste water treatment plants
- Basements, foundations and lift pits
- Subway stations
- Bridges
- Airports
- Reservoirs
- Tunnels
- And many others requiring waterproofing and concrete protection.
EXTRAORDINARY WATERPROOFING SOLUTIONS

Cormix is the first Company in the world to offer the concept of Primary waterproofing with Secondary protection.

Cormix has combined its know how to offer smart sound solutions to concrete waterproofing and reinforcement protection at no extra cost. Formulated with ease of application and low consumption rates in mind the Cormix systems take the concept of integral waterproofing to another level. It has uniquely combined crystalline waterproofing and corrosion inhibitor technologies creating products which perform at lower dosages and coverage rates than standard crystalline waterproofing admixtures and coatings with superior performance and lower cost.

Cormix H2O STOP + CI admixture is in liquid form for ease of dosing unlike the majority of existing products on the market and contains a corrosion inhibitor whilst Contite Seal ACCI a waterproofing slurry does not require curing has lower coverage rates and incorporates a migrating corrosion inhibitor.

Cormix systems provide sound solutions and peace of mind with permanent life time waterproofing.

LATEST TECHNOLOGY

ADMIXTURE

CORMIX H2O STOP + CI : 2 in 1 concrete admixture in both liquid and powder form. Unique Cormix crystalline waterproofing concrete admixture incorporating a corrosion inhibitor to provide full depth permanent reactive waterproofing and corrosion protection to cement paste and reinforcement. This technology provides lifelong protection and takes advantage of Cormix corrosion inhibitor technology.

SLURRY

CONTITE SEAL ACCI : A unique ecologically friendly permanent reactive subsurface waterproofing membrane system applied in slurry form in one coat by brush or spray.
CORMIX
H₂O
STOP
+CI

Unique dual protection: Full depth waterproofing with total rebar protection by corrosion inhibitor.

Liquid easy dosing and dispersion: No premixing, direct dosing through existing dispensers, saves time, good dispersion with no clumping.

Corrosion Inhibitor admixture: The life span of the structure is extended, more sustainable, less maintenance, no additional cost of adding corrosion inhibitor in mix.

Low dosage: Significant cost savings compared to other systems whilst providing secondary corrosion protection to rebar.

Permanent Life time Guarantee: Sustainable construction, Concrete durability is extended, limited maintenance, lasts the life of the structure, no future old waterproofing disposal / pollution issues, green construction.

Non toxic: No toxic chemicals released to the environment either in production or application, user friendly with no health hazards.

CONTITE SEAL
ACCI

Unique dual Protection: Primary waterproofing of the concrete with secondary migrating corrosion inhibitor protection to reinforcement.

No water curing: Self curing so no need to cure with water for two days saves time, cost, mess and waste of water unlike other similar products.

Contains Migrating corrosion inhibitor: A unique migrating corrosion inhibitor protects the reinforcement extending the life of structure.

Non toxic: No toxic chemicals released to the environment either in production or application, user friendly with no health hazards.

Permanent: No ongoing maintenance, or future disposal problems of old waterproofing, sustainable and lasts life of the structure.
CORMIX WATERPROOFING BY CRYSTALLIZATION RANGE

SLURRY
CONTITE SEAL: The Original crystalline waterproofing slurry from Cormix with a long track record, it is an economical solution to permanent sub surface waterproofing requiring curing.
CONTITE SEAL AC: Providing all the benefits of ACCL but without the reinforcement corrosion inhibitor. A lower cost system requiring no curing with water.

LIQUID PENETRATION
CONTITE: A liquid water based spray applied one coat permanent subsurface waterproofing solution. Particularly effective for waterproofing of exposed dry surfaces. It penetrates deep into the concrete, crack sealing and remains active for the life of the structure.
CONTITE HHH: Based on Cormix water repellant and crystalline waterproofing technology. Contite HHH is another unique water based one coat spray applied subsurface permanent reactive waterproofing system. It provides protection against water borne salts and chemicals and other deleterious materials. Especially useful for applying to big concrete structures with large exposed areas.

WATERSTOP
CONTITE WATERSTOP AND WATERSTOP S: A Hydrophilic (swelling) waterstop strip used in conjunction with Cormix Crystalline waterproofing to seal construction joints and penetrations through concrete, a salt water version is available together with a range of sizes complementing the crystalline waterproofing range. Contite Waterstops will give total waterproofing solutions in basements, water retaining structures and other below grade structures.

REPAIR
CONTITE SEAL MORTAR: A crystalline waterproofing repair and sealing mortar. Used in conjunction with Cormix Crystalline waterproofing and standard repair and injection systems to repair honeycombs, leaking joints, tie holes and other minor imperfections.

HOW CORMIX PRODUCTS ARE DIFFERENTIATED FROM THE REST

Cormix takes advantage of its construction chemicals knowhow to provide a range of crystalline waterproofers incorporating other technologies with due regard for the environment using environmentally friendly know how.
Cormix leads the way in crystalline waterproofing technology developments taking advantage of its position as a Construction Chemicals manufacturer. It has taken know-how from other areas of its business and added value to crystalline waterproofing products offering 2 and 3 in one systems. Cormix has combined hydrophobic, corrosion inhibitor, water retaining, antifreeze and other nano technologies with its range of crystalline waterproofer to develop a unique product range. These are supported with accessories, swelling waterproofing, reinjectable hoses, sealing strips and other materials for the repair of failed basement waterproofing systems such as injection gels and resins, water cut off & soil stabilization grouts, crystalline repair mortars and negative side waterproofing systems.
Eco friendly and providing long term sustainability Cormix Crystalline waterproofing technology is backed up by laboratories and technical support that has led to it being established in underground construction and waterproofing in various markets around the world. Environmental protection is a priority and an integral part of Cormix Crystalline waterproofing developments. Cormix provides sound solutions which are permanent and therefore sustainable. Cormix products, packaging and partners must conform with environmental regulations and protection of environment.

Why chose Cormix as your partner in creating an eco sustainable building?

- Permanent system that’s remains part of the structure
- No VOCs, hazard free products
- No degradation polluting the environment
- No disposal issues
- Reduction in water usage in concrete mixes
- Decreased cement consumption and therefore energy use
- No maintenance costs, self healing properties and react throughout the life of the concrete
- Dry damp free buildings reduces energy usage
- Recyclable as part of the concrete
- Improved durability means longer life for structures
- Air cure options no wastage of curing water. These improvements all add value to the building or utility, in addition Cormix Crystalline products contribute to LEED points.

CORMIX CRYSTALLINE PRODUCTS CONTRIBUTE TO LEED POINTS FOR EXAMPLE

- Decrease in heat island effect.
- Reduction in site disturbance via adding to concrete
- Water conservation
- Building life cycle and span increased
- Recyclable concrete no packaging waste associated with other systems
- No VOCs
- Removes design constraints in using water proof membranes

Cormix products are manufactured under rigorous QA and QC systems at our site in Thailand. The facilities are ISO 9001:2015 certified and are manufactured to comply with International standards including: ASTM, BS, EN, JIS and others. All products are supported by a manufacturers warranty.

COMMITMENT TO QUALITY