# HYDROCAP

Concrete waterproofing through capillary crystallization

"A century of solutions"

ANTI-HYDRO INTERNATIONAL, INC.

A tradition of waterproofing performance since 1904

# What is A-H INVORUGAP?

HYDROCAP is a unique blend of Portland cement, Silica quartz, and proprietary active chemicals. When mixed with water, HYDROCAP is applied as a cementitious slurry to the surface of the concrete. It may be applied above or below grade. HYDROCAP migrates into the concrete and reacts with the hydration products of cement to form insoluble crystals. These crystals densify the cement paste by precipitating into the pores and capillaries of the concrete.

## **Features**

#### In depth waterproofing ability

- HYDROCAP becomes integral part of concrete
- · Impermeability lasts as long as the concrete
- Impermeability is not affected by surface wear
- Resists extreme hydrostatic pressure

#### Protects reinforcing steel from corrosion

- Protects against waterborne contaminants
- Stops ingress of water required for ASR
- Maintains high alkalinity for steel protection

#### **Efficient application process**

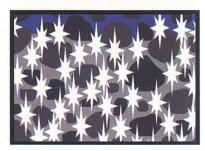
- · Can be applied to wet concrete
- · Can be used for new or existing concrete
- · Can be applied to positive or negative side
- Does not require re-application
- · Does not requiire stringent workmanship
- Compatible with water based adhesives and surface coatings

# How does A: HITOROCAP waterproof concrete?

Upon application, HYDROCAP molecules sink deep into the pores of concrete.



The HYDROCAP then forms non-soluble crystalline structures that prevent the penetration of liquid.



### **Benefits**

- Lowers overall costs of project
- Permanent waterproofing system
- Requires no maintenance
- Increases usage of infrastructure
- Eliminates risk of membrane failures
- Eliminates application errors associated with installation of other systems
- Unmatched technical support
- Long-term manufacturer's warranty
- Manufacturer's history of international success in various climatic and environmental conditions

# **Easy application process**



Clean and prepare the surface area



Wet the surface area



Mix the A:H° Hydrocap



Apply the A:H° HYDROCAP



Cure the A:H° HYDROCAP

#### **Applicable standards**

HYDROCAP complies with the following standards:

- Permeability of concrete ----- Army Corps of Engineers (USACE) CRD-C48-73
- · Impermeability to water ----- oNORM B 3303
- Chemical resistance of mortars, ----- ASTM C 267 grouts and monolithic surfacings
- Scaling resistance to concrete ------ ASTM C 672 surfaces exposed to de-icing chemicals

#### **Approvals**

Approved for use in structures containing foodstuffs or potable water by:

- NSF International --- NSF 61 potable water approval
- US Environmental Protection Agency

#### **Independent test results**

PERMEABILITY (USACE CRD C48-73): Two inch (51mm) thick, 2000 psi (13.8 MPa), HYDROCAP-treated, concrete samples wer pressuretested up to a 450 ft. (124m) water head (175 psi/1.2 MPa) which was the limit of the testing apparatus. While untreated samples showed marked leakage, the HYDROCAP-treated samples (as a result of the crystallization process) became totally sealed and exhibited no measurable leakage.

CHEMICAL RESISTANCE (ASTM C 267): HYROCAP-treated cylinders and untreated cylinders were exposed to hydrochloric acid, caustic soda, toluene, mineral oil, ethylene glycol, pool chlorine, brake fluid and other chemicals. Results indicated that chemical exposure did not have any detrimental effects on the HYDROCAP coating. Tests following chemical exposure measured an average 17% higher comprehensive strength in the HYDROCAP-treated specimens over the untreated control samples.

### Areas of use



**Commercial** 



Industrial



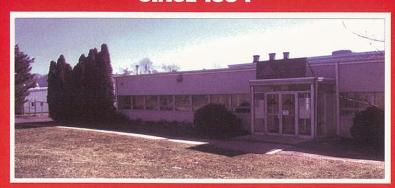
Residential



**Tanks** 



# **SINCE 1904**



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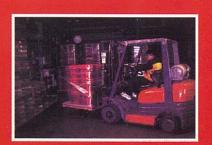
Anti-Hydro International specializes in developing, manufacturing, and distributing specialty protection products for the construction industry. For more than a century Anti-Hydro has been at the forefront of some of the most demanding areas of structural protection.

With more than 114 specialty products distributed in 36 countries, Anti-Hydro has proven time and again an ability to meet the needs of the construction industry. In high rise structures from foundations to roof tops, in the supporting structures of bridges and dams, Anti-Hydro products have demonstrated their versatility and reliability in a wide range of applications and environmental conditions.

The Anti-Hydro family of products represent the accomplishments of a dedicated team of technical and business professionals. We invite you to visit our web site to discover how our team of experts can assist you in your next construction project.







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