



# ANTI-HYDRO®

## Placing Concrete in Cold Weather

### PRODUCT SPECIFICATION

### 8-1

Rev. 07/24

#### DESCRIPTION:

ANTI-HYDRO® admixture in cold weather increases hydration and may eliminate the need for externally applied heat. ANTI-HYDRO® produces high strength, durable, non-dusting below and above grade concrete. It improves workability and reduces shrinkage and cracking.

ANTI-HYDRO® is a non-corrosive solution of organic and inorganic chemicals that reacts with Portland cement to produce more complete hydration. The increased hydration utilizes more of the mixing water producing heat of hydration over a shorter time. The increased hydration provides internal curing and a much denser, harder cement paste.

#### SPECIFICATIONS:

In cold weather conditions, all concrete, as indicated on plans and specifications, shall be placed and protected against damages using ANTI-HYDRO® as manufactured by Anti-Hydro Products, LLC.

#### RECOMMENDATIONS FOR COLD WEATHER CONCRETING:

1. Early development of approximately 500psi in the concrete will prevent damage due to early freezing. Using ANTI-HYDRO® will attain such strengths in less than 12 hours before freezing which prevents damage due to frost action.
2. The hydration of Portland cement produces heat. The higher the cement content, the greater the heat produced. This is helpful for cold weather protection.
3. Heated water and aggregates should be used. Maximum temperatures are as follows: mixing water 150°F.; aggregates 200°F.; concrete 80°F. The recommended temperature of concrete being placed should be 55°F, in accordance with ACI-306R.
4. Protect concrete during early curing stages against change in temperature. Thermal shock may cause cracking of concrete. Do not place concrete toppings on base slabs where there is more than 30°F temperature differential between the topping mix and existing base. The subsequent thermal movement may cause failure to the bond between base and topping.
5. Do not allow gases from heating devices to be directed on fresh concrete. Carbonation results in soft, weak surfaces.
6. On windy days, erect wind barriers to prevent rapid water loss from freshly placed floors. Leave wall forms on longer. Protect exposed concrete from elements.

#### CONCRETE BATCHING:

ANTI-HYDRO® shall be added with mixing water or to the concrete while partially mixed and mixed for a minimum 1 minute per cubic yard. Addition of ANTI-HYDRO® Portland cement or concrete mix. No concrete shall be placed on wet or soggy ground without first laying and compacting a bed of broken stone or gravel of adequate thickness to prevent the mud from mixing with the concrete.

Concrete dosage rates in ESTIMATOR'S DATA are based on the lowest temperature in the 24 hours period following installation, including wind chill factor. ACI 306 "Recommended Practice for Cold Weather Concreting" shall be followed when air temperatures are below 50°F.

#### ESTIMATOR'S DATA:

Average conditions and mix: 3000 psi, 4" slump, frost free materials.

Temperatures must include wind chill conditions:

TEMPERATURE RANGE	ANTI-HYDRO® REQUIRED
From 40°F to 32°F:	1 gallon per cubic yard
From 31°F to 23°F:	1½ gallons per cubic yard
From 22°F to 20°F:	2 gallons per cubic yard
From 19°F to 15°F:	3 gallons per cubic yard

#### MAINTENANCE:

All due diligence must be exercised to provide a regular and frequent maintenance plan to clean and protect the finished surface from severe or prolonged assault from chemical attack, abrasive attack or similar abuse

#### SAFETY:

Use approved safety glasses, rubber gloves, coveralls and work boots. Protect animals, vegetation and food items. Refer to the Safety Data Sheet (SDS) for details.

#### STORAGE:

Store in a dry, cool place. Keep containers tightly closed. Refer to the SDS for details. **KEEP AWAY FROM CHILDREN.**

#### PACKAGING:

1-quart, 1-gallon, 5-gallon, 55-gallon or 275-gallon containers.



#### SERVICES:

Our technical staff is available to review product selection and detailing during the design stage.

#### WARRANTY:

Anti-Hydro Products, LLC. (Anti-Hydro) warrants its products to be free of manufacturing defects at the time of delivery to its customer and will, at its option, replace or refund the invoiced price of any materials proven to be defective. This limited warranty is in lieu of any other warranty or guarantee, expressed or implied, including warranties of merchantability and fitness for a particular purpose. Anti-Hydro disclaims liability for any incidental, consequential, or other damages, including but not limited to, loss of profits or damages to a structure or its contents, arising under any theory of law whatsoever beyond the invoiced price of the material to its customer.

To the best of our knowledge, the information contained herein is accurate. However Anti-Hydro Products, LLC.. does not assume liability whatsoever for the accuracy or completeness of information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present known or unknown hazards, please refer to the Safety Data Sheet (SDS) for this product. This notification may not be detached from the specification. Any copying and redistribution of the specification shall also include copying and redistribution of this notice. Our salespersons or representatives, distributors and their personnel have no authority to change the recommendations contained herein.

### PRODUCTS & TECHNOLOGY FOR CONCRETE AND MASONRY WORLDWIDE SINCE 1904

For over 120 years, Anti-Hydro Products, LLC has been integrally waterproofing many concrete and masonry structures all over the globe. The success of our core product Anti-Hydro "AH-1", has been attested not only by the commercial recognition accorded by its use in many prestigious projects worldwide, but also by tests performed by many governmental agencies and accredited independent laboratories.

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