

PRODUCT SPECIFICATION 9-4
"ANTI-HYDRO"[®]

Admixture for Quick, Durable Patching & Repairing
Existing Concrete & Masonry

Rev. 06/15



ANTI-HYDRO INTERNATIONAL, INC.

Concrete and Masonry Products and Problem Solving Worldwide Since 1904

45 River Road, Flemington, New Jersey 08822, Phone: (800) 777-1773, Fax: (908) 284-9464, Visit www.anti-hydro.com

DESCRIPTION:

"ANTI-HYDRO"[®] is extensively recommended and has been successfully used since 1904 for fast, durable concrete repairs and resurfacing. It has a multitude of uses for all types of construction and maintenance projects to prevent deterioration or damages and to restore structural integrity particularly where high bond, high early strength, quick set, increased abrasion resistance, waterproofing and reduced shrinkage are desired.

"ANTI-HYDRO"[®] is used in concrete mixes, packaged cements and slush coats for producing high bond, high early strength, quick set, increased abrasion resistance and reduced shrinkage. The "ANTI-HYDRO"[®] system is suitable for all types of concrete repairs.

"ANTI-HYDRO"[®] enhances the placeability and finishability of the mixes and through more complete hydration of the cement, achieves higher strength at all ages. Fast, durable repairs can easily be accomplished without specially trained personnel. "ANTI-HYDRO"[®] is also recommended where extremely quick sets are required for plugging or grouting.

SPECIFICATIONS:

All concrete resurfacing, as indicated on plans or finishing schedule shall contain "ANTI-HYDRO"[®], as manufactured by Anti-Hydro International, Inc., in strict accordance with manufacturer's specifications. Refer to our [Waterproofing & Industrial Floor Details](#). <(click me)>

MIXES:

Concrete Patches ¾" to ¾" thick-

The mix shall consist by volume of 1 part Type-1/Type-2 portland cement to 2 parts clean, well graded, natural sand, gauged and tempered with a solution of 1 part "ANTI-HYDRO"[®] to each 10 parts of water. The mix shall contain no more than 3½ gallons of mixing liquid per bag of cement.

Concrete Topping ¾" to 3" thick-

One (1) part Type-1 portland cement, 1 part sand and 1½ parts maximum ¾" aggregate, gauged with a 1:10 solution of "ANTI-HYDRO"[®] and water, with a maximum slump of 2".

The topping shall contain a minimum of 846 lb. (≈9 x 94 lb. bags) of Type-1 portland cement per cubic yard, combined with not more than 33¾ gallons of total liquid. Each cubic yard of topping shall contain 2½ gallons of "ANTI-HYDRO"[®]. The "ANTI-HYDRO"[®] shall be added to the mixing water or to partially mixed topping.

Monolithic Concrete, 4" or thicker-

The concrete mix shall be proportioned by volume as follows; 1 part Type-1/Type-2 portland cement, 2 parts fine aggregate, 3½ parts coarse aggregate.

The concrete shall contain a minimum of 526.5 lb. (≈5.6 x 94 lb. bags) Type-1/Type-2 portland cement per cubic yard, combined with not more than 36 gallons of total liquid. Each cubic yard shall contain 1½ gallons of "ANTI-HYDRO"[®]. The "ANTI-HYDRO"[®] shall be added to the mixing water or to the partially mixed concrete mix.

Use [A-H[®] ANCHOR-IT](#) <(click me Spec.7-8)> for bonding thin overlays that are less than ¾" thick.

Packaged Cement Mixes-

Use sand-cement or sand-cement-stone mixes only. Mixes must not contain masonry cement, lime, fly ash, or fillers.

"ANTI-HYDRO"[®] Slush Coat-

Mix 1 part "ANTI-HYDRO"[®], 3 parts water with enough Type-1 portland cement to a heavy cream consistency.

"ANTI-HYDRO"[®] Dash-Coat Bonding Grout-

A slush or grout shall be prepared by stirring fresh Type 1 portland cement into a mixture of 1 part "ANTI-HYDRO"[®] to 2 parts water and 2 parts [A-H[®] ANCHOR-IT](#) <(click me Spec.7-8)> acrylic latex bonding agent to the consistency of a heavy cream. Do not prepare more grout than can be applied in 30 minutes.

"ANTI-HYDRO"[®] Dash Coat-

A dash coat shall be prepared by stirring fresh Type-1 portland cement into a mixture of 1 part "ANTI-HYDRO"[®] to 5 parts water to the consistency of a heavy paint or thin mortar. Fine mason sand may be added in proportion of 1 part sand to 1 part Type-1 portland cement.

The initial setting time may be reduced and early strength of all of the above mixes can be achieved by increasing the proportions of "ANTI-HYDRO"[®] to the mixing water. The setting times of sand-cement mixes can be brought to less than ½ hour by the use of full strength "ANTI-HYDRO"[®]. Fresh Type-1 portland cement and "ANTI-HYDRO"[®] will set in one minute. Refer to ["ANTI-HYDRO"[®]](#) <(click me Spec.1-13A)> for hot plugging.

PREPARATIONS:

Cut out loose or spalled materials to sound concrete (minimum ¾" depth). Cut a shoulder into the floors to be resurfaced for a minimum of ¾" depth.

All concrete to be resurfaced shall be thoroughly clean and rough and free of contamination, coatings or foreign materials. Chipping,

sand-blasting or scarifying are suitable means of preparing floors.

APPLICATION:

Bonding-

The prepared bonding “ANTI-HYDRO®” Slush Coat is to be scrubbed into the surface with a stiff broom and the topping placed while the slush coat is still damp.

Placing and Finishing-

The concrete shall be straight edged or rolled level, immediately followed by bull floating or “darbying” for secondary leveling and compaction. After the initial bleed water has disappeared, the surface shall be floated. All floating operations shall be done in 2 directions perpendicular to each other. After the concrete has been allowed to stiffen (sustain foot pressure with no greater than ¼” indentation), the first troweling operation shall start. After completion of the first troweling, the concrete shall be allowed to stiffen further and a second troweling started. For the second trowel application, the troweling blade shall be slightly tilted to produce a hard, smooth finished surface free from chatter marks or blemishes. For further burnishing as required, continue troweling operations.

Joints-

Joints in concrete shall be located directly over joints in base course. Construction joint edges shall be compacted with a ½” radius edging tool. Control joints shall be tooled with a sufficient depth of bit for weakness plane, or be the saw-cut type. If saw-cuts are used, they shall be made as soon as possible without raveling the edges and nor more than 24 hours after finishing. Refer to our [Waterproofing & Industrial Floor Details](#). <-(click me)

Curing-

After the concrete is dry to the touch, cure with water, or with [A-H® ACURICON](#) <-(click me Spec.6-1) or [A-H® 3 WAY SEALER AIM](#) <-(click me Spec.6-9B) for curing and additional hardening, or for curing, sealing and glossy surface.

Protect concrete from heavy traffic during its early life, by plywood sheets or planking.

“ANTI-HYDRO®” Dash-Coat on Concrete or Masonry-

An ideal method for producing rough textured surfaces as a base for subsequent application of portland cement based mortars.

Dampen the surface with water and apply “ANTI-HYDRO®” Dash-Coat Bonding Grout with a stiff brush. While the Dash-Coat Bonding Grout is still damp, apply “ANTI-HYDRO®” Dash-Coat from a stiff brush by snapping the wrist so as to deposit small globules of Dash-Coat mortar in an irregular manner on the grouted surface.

For Bonding Cement Parget Coat to Membrane-

Apply [A-H® SEAMLESS MEMBRANE](#) <-(click me Spec.1-15B) as per its specification and allow to cure 24 hours (at 70°F). Apply “ANTI-HYDRO®” Dash-Coat Bonding Grout from a stiff brush by snapping the wrist so as to deposit small globules of Dash-Coat Bonding Grout in an irregular manner on the grouted surface.

PRECAUTIONS

“ANTI-HYDRO®” conforms to the requirements of ACI 318-4.4.1 and ACI 318-3.6.3. “ANTI-HYDRO®”, when tested according to ASTM C 876-

91, exhibited no corrosion (see our [Technical Bulletin](#) <-(click me W-1-2). However, **DO NOT use “ANTI-HYDRO®” in pre-stressed or post-tensioned applications or where chlorides are not acceptable.**

Testing for set time is recommended before use as a result of recent globalization of cement sources.

Safety-

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

Storage-

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

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.

TYPICAL PROPERTIES & PERFORMANCE DATA:

Refer to [“ANTI-HYDRO®”](#) <-(click me Spec.1-1), Section “TYPICAL PROPERTIES & PERFORMANCE DATA”.

PACKAGING:

1-quart, 1-gallon, 5-gallon, 55-gallon or 220-gallon containers.

SERVICES:

Our technical staff is available to review product selection and detailing during the design stage, provide proper field guidance during the installation stage, evaluate concrete construction problems on-site and make recommendations.

ESTIMATOR’S DATA:

- 1½ gallons “ANTI-HYDRO®” per cubic yard of thicker topping.
- 2¼ gallons “ANTI-HYDRO®” per cubic yard of topping.
- 1 gallon “ANTI-HYDRO®” per 150 sq. ft. of surface for “ANTI-HYDRO®” Bonding Slush Coat.

WARRANTY: Anti-Hydro International, Inc. (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 International, Inc. 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 Material Safety Data Sheet (MSDS) 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 sales persons or representatives, distributors and their personnel have no authority to change the recommendations contained herein.