WATER VAPOR TRANSMISSION OF ANTI-HYDRO TREATED CONCRETE

TECHNICAL BULLETIN

ASTM E96 WATER VAPOR TRANSMISSION

1 INCH-THICK TEST SAMPLES WERE PREPARED AS PER BELOW;
MIX DESIGN & TESTED FOR VAPOR TRANSMISSION AS PER ASTM E96. (SHIMEL AND SOR)

MATERIAL	AMOUNT
CEMENT	470 LBS
SAND	1550 LBS
PEA GRAVEL	1600 LBS
W/C RATIO	0.569:1
ANTI-HYDRO	10 LBS (0.21% OF CEMENT)
RESULTS:	0.0413 AVERAGE PERM, BASED ON 3 SAMPLES TESTED FOR 2 WEEKS

TO DETERMINE THE PERM RATING OF A THICKER SLAB, DIVIDE THE PERM RATING OF A 1-INCH SLAB BY ITS THICKNESS

EXAMPLE A
A 6 inch slab of the aforementioned **Anti-Hydro** treated concrete has a Perm rating of 0.0413, divided by 6, results in 0.007 Perms.
"0.0413/6 = 0.007 Perms"

IN COMPARISON
A 10-mil poly sheet has a Perm rating of 0.021 ***vs*** the 6-inch **Anti-Hydro** treated concrete slab's Perm rating of 0.007.
"0.021 vs 0.007"

EXAMPLE B
26,280 pounds of water vapor p/year pass through a 1 million sq ft data center with 10-mil poly ***vs*** 8,760 pounds pass through with **Anti-Hydro** treated concrete (no poly).

ANTI-HYDRO TREATED CONCRETE IS A FAR MORE EFFECTIVE VAPOR RETARDER THAN 10-MIL POLY

DRAWBACKS OF POLY VAPOR RETARDERS

- HAVE BEEN BLAMED FOR CURLING & CRACKING OF SLABS
- MAY BE DAMAGED BY PUNCTURES OR TEARS
- CAN FAIL DUE TO POOR INSTALLATION
- MADE OF RECYCLED MATERIALS THAT DETERIORATE OVER TIME
- ARE PETROLEUM PRODUCTS & ARE NOT "*SUSTAINABLE*"
- CAN BLOCK MOISTURE FROM DRYING INWARD

USE ANTI-HYDRO TO MAKE YOUR CONCRETE SLAB A VAPOR RETARDER!

PROTECTS MOISTURE-SENSITIVE FLOORING
Moisture vapor can compromise adhesives & coatings for flooring like carpet, wood, & tile, leading to failures such as delamination, distortion, or discoloration.

BLOCKS HARMFUL GASES
Soil gases, including radon, can migrate through the ground and into a building. A vapor retarder acts as a barrier, protecting indoor air quality.

PROTECTS THE BUILDING ENVELOPE
The slab is part of the building envelope, and a vapor retarder helps prevent moisture infiltration into the building's structure.

SAFEGUARDS EQUIPMENT
For commercial and industrial applications, a vapor retarder protects sensitive equipment placed on the slab from moisture damage.

PREVENTS STRUCTURAL DAMAGE
Excessive moisture in the slab can lead to issues like warping or buckling of materials and can create a damp environment conducive to mold and odors.

ANTI-HYDRO PRODUCTS, LLC®

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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