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Hixson Consultants, Inc. 947 1st Avenue West Alabaster, Alabama 35007 Phone: 205-663-2220



Compass

Let Us Help Set Your Course For Navigating Water Intrusion Problems

Building Wraps in Exterior Vertical Wall Cavities By: Greg L. Cunningham

Weather or water resistive barriers are an important part of the exterior wall system and should be designed to control moisture penetration. Barriers should also be permeable enough to let air pass through to allow the cavity to dry.

When water passes through the exterior cladding these resistive barriers serve as a second layer of moisture protection. The building wrap also serves as a barrier to air infiltration, improving energy efficiency and allowing the wall cavity to breath. This aids in protecting against air and water infiltration while allowing harmful moisture vapor to escape the wall cavity.

By sealing the structure with building wrap a more sustainable structure that costs less to operate and maintain can be achieved.

Building wraps should be carefully flashed at window opening penetrations and other pene-

trations where water could enter the building. Each building wrap manufacturer offers their own installation methods and flashing tape or membrane products for flashing these openings.

The building wrap flashing and sealing configurations also differ depending on the type of window installed within the opening. Most fin type window manufacturers have their own installation instructions on how the window fins are attached onto or interfaced with the building wrap material. Hixson Consultants, Inc., HCI, always recommends turning the building wrap into the window jamb opening. Each fin window manufacturer bases their recommendations for installation of the building wrap to their window on their factory test results. Other types of window systems require different approaches to installing the flashing which serves as a secondary line of defense to stop water penetration.

Most building wrap materials are generally sensitive to UV exposure. The exposure limitations need to be factored in during design so the building wrap will not be damaged during the construction phase.

A condensation analysis should also be performed in an effort to determine the need for insulation sizes and optimal locations for insulation, vapor retarder, and air barrier.



"Think Like Water!"

VaproShield Product Review



VaproShield Breathable Membrane Products for roofs and walls are suitable for any climate conditions.

VaproShield, LLC located in Gig Harbor, Washington has developed a high-performance building wrap system which is a breathable weather resistant barrier.

VaproShield, LLC manufactures Wallshield designed to be used in open joint rain screen applications by double layering membranes in open joint locations while allowing ultimate UV protection and breathability.

Another product WrapShield combines the best properties of a vapor permeable membrane and an air barrier in one innovative, affordable product, with a 50 perm rating.

VaproShield also produces rain screen components and 3D opening flashing elements that can be engineered for the optimum in wall construction.

Product review is for information only and is not an endorsement from HCI.



Many proven solutions are available. Call HCI for cost effective solutions customized for your project. We want to share our Building Envelope observations with our valued clients and other individuals who may be interested in receiving our semi-monthly publication.

Ben Hixson and the HCi Building Envelope Solutions Team are proud to launch this first edition newsletter. In these challenging economic times we want to share our total building envelope expertise. We are dedicated to avoiding moisture intrusion that can facilitate cost savings and translate into less effort for you, your company and your employees.

Cost Savings + Less Effort

equals more time with your family, on the golf course, or at the beach!

Please take a few moments to review the contents and learn how HCI can make a positive difference to your 2009 bottom line.

NEWSLETTER HIGHLIGHTS:

- Building Wraps
- Barriers
- Flashings
- VaproShield Product Review

Contact us for educational generic **SEMINARS** on green roofing and sustainability.

HCI Team Members:

- Ben Hixson, Principal Mobile: 205-382-0111
- Tony Wright, Sr. Consultant Mobile: 205-515-5300
- Greg L. Cunningham, Sr. Consultant Mobile: 205-907-3913
- Mike Ray, Consultant Mobile: 205-876-3737
- Tyler Hixson, Sr. Technician Mobile: 205-994-0802

Call our office at 205-663-2220 or visit our website <u>www.bedocs.com</u>

HCI does not sell or represent any products.

See next issue:
Flashings & Window
Openings