



BLINDSIDE WATERPROOFING 101

What You Should Know BEFORE the Project Begins

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Introduction

What is blindside waterproofing?

Blindside waterproofing is the foundation waterproofing method of choice whenever excavation past the foundation walls isn't possible – think zero lot line sites where the new foundation will border existing walls, or locations that are otherwise inaccessible to heavy equipment.

Also known as pre-applied waterproofing, blindside waterproofing is installed before the building foundation is poured – the waterproofing membrane is applied to the adjacent wall or shoring, which can be soldier pile, metal sheet piling, soil-nailing, or shotcrete. Once the waterproofing membrane is in place and fully detailed, then the structural walls are placed and the foundation is poured.

Blindside waterproofing challenges

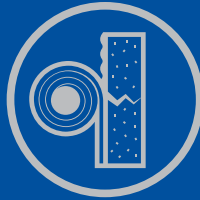
Maintaining the integrity of the waterproofing membrane is essential for an effective blindside waterproofing system, but there are several risks that can push this goal out of reach. Selecting and installing an effective waterproofing product is about managing and mitigating these risks, since in most cases, factors other than the waterproofing membrane itself are responsible for water intrusion.

To help educate building designers on the key challenges of blindside waterproofing, Henry is proud to present this **BLINDSIDE WATERPROOFING 101 guide**.



Site Conditions

Know the hydrogeology



Hydrogeology is a specialty of geology focused on the distribution and movement of groundwater in the soil. Knowing the hydrogeological condition of your project site is important, since maximum water table height directly impacts waterproofing membrane selection, as does the hydrostatic pressure it produces at different times of the year.

Environmental concerns



Temperature restrictions at the time of installation are also important. Certain waterproofing products are suited for low-temperature conditions that help the membrane stay pliable in severe cold. Many waterproofing membranes also contain adhesives or hydrophilic materials that can be compromised by prolonged UV exposure.

The Substrate Situation

Substrate impact

The selection of a waterproofing type is dependent on the substrate type and/or the substrate condition. Most pre-applied waterproofing technologies have different substrate requirements depending on the excavation support system type (soldier pile, metal sheet piling, soil-nailing or shotcrete). If the substrate is not suitable for a given waterproofing membrane, the membrane may become damaged prior to concrete placement, or it may have a failed seam, which will lead to water intrusion.

Substrate preparation

Prior to installing the waterproofing membrane, the substrate surface must be as smooth, clean, and dry as possible. The presence of mud, voids, wires, or any other surface irregularities will affect membrane effectiveness, so proper substrate preparation is as essential as selecting the proper waterproofing membrane for the substrate.





Installation Issues

Pay attention to details

Even with careful substrate preparation, installers will have to contend with penetrations in the waterproofing membrane. They must be detailed before the foundation wall is poured, as such penetrations will allow water to bypass the membrane and reach the foundation. Corners, joints, transitions, or any area with a seam will also require additional detailing.

Accordingly, waterproofing products that have high puncture-resistant and are installation-friendly generally perform best in pre-applied applications. Membranes that are easier to transition up a wall or detail offer a greater chance of success than more labor-intensive systems. After all, more labor intensive systems requiring more intense detailing naturally offer greater likelihood for membrane damage.

Inspect, then inspect again

Doing it right the first time is the goal for all aspects of building construction, but for blindside waterproofing it's essential. Once the foundation concrete is poured, repairing damage from water intrusion will be extremely difficult, if not impossible. All detailing – indeed, all areas of the membrane – should be carefully inspected, then reinspected before any foundation concrete is poured.

Before Specification Begins...

As this guide outlines, the performance of a blindside waterproofing membrane is impacted by several project- and site-specific factors. In other words, there is no one-size-fits-all approach to pre-applied waterproofing! There is also no substitute for working with a reliable, technically knowledgeable waterproofing system manufacturer that can help you assess your needs and select the best solution to meet them.

Consult with the experts at Henry®

Backed by 50 years of waterproofing expertise, Henry Company foundation waterproofing systems feature membranes of exceptional durability. For zero-property line applications, Henry offers a pre-applied solution with a unique dual bonding technology. And unlike most pre-applied membranes that are standalone products, Henry's pre-applied system is part of the complete Henry Building Envelope Systems® portfolio, which covers structures from foundation to wall to roof.

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