

# Wall Construction & Approved Sheathing Options

When it comes to applying American Hydrotech's roofing and waterproofing membrane, concrete is the preferred substrate. However, many projects involve framed walls that require the application of Hydrotech's membrane. These walls typically consist of metal framing with attached sheathing. While most sheathing boards are suitable substrates for Hydrotech's membranes, it's important to note that some are not. This white paper aims to provide guidelines for selecting the appropriate sheathing product, aiding the design team in making informed decisions.

## Common products:

### Plywood boards

Acceptable for all Hydrotech's roofing and waterproofing products.

Must be a minimum ½" thick CDX, tongue and groove, installed properly with adequate structural support to limit deflection and movement between joints. Plywood boards must be free of any chemicals that may affect the adhesion of the membrane. High levels of moisture can be a concern, as wood naturally has high moisture content and can fluctuate as it aims to remain in equilibrium with the surrounding moisture.



### OSB boards

Acceptable for MM6125 and LM6090.

**NOT acceptable** for HydroSeal Flashing Membrane.

Similar requirements to plywood substrate. Confirm with the manufacturer of the board that the adhesive used within the OSB board will not be affected by the high temperatures of MM6125. Textured side should be to the membrane.



### Gypsum boards

Some gypsum boards are acceptable for MM6125 and LM6090.

**NOT acceptable** for HydroSeal Flashing Membrane.

*Approved examples for MM6125 and LM6090:*

- USG Securock® Brand Gypsum-Fiber Roof Board
- Georgia-Pacific DensDeck® Roof Board

*It is recommended that Hydrotech Technical Department review other products.*

Exterior grade gypsum-fiber board is a specialized performance panel with dense concentration of gypsum and cellulose fibers. Gypsum boards must be fire-rated Type X with minimum thickness of 5/8", installed properly with adequate structural support to limit deflection and movement between joints. Gypsum boards without a facer are preferred. *Caution should be used with these types of boards to ensure they are intended for roofing/waterproofing applications.*



### Cementitious Boards (not tile backer boards)

Most Cement Boards are acceptable for all Hydrotech membranes.

*Approved example:*

*Securock® Brand Cement Roof Board*

Cement-based boards can provide superior compressive strength, water durability and mold resistance. Cement boards must be a minimum thickness of ½", installed properly with adequate structural support to limit deflection and movement between joints. Cement boards with "EdgeGuard" are not approved (unless "EdgeGuard" is removed).

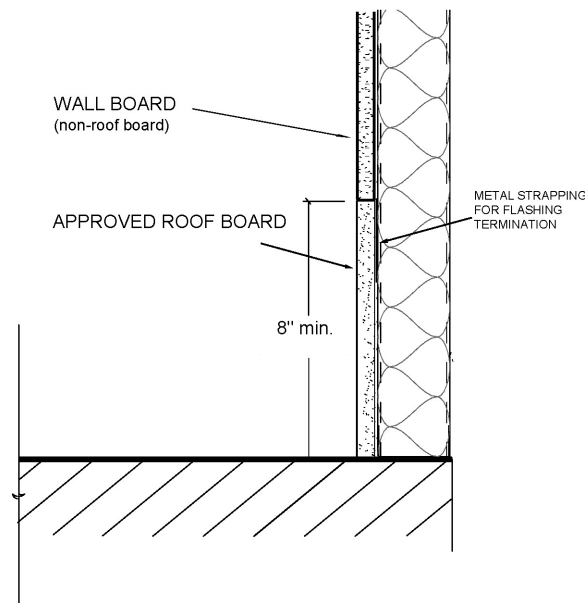
Tile backer boards have some of the same characteristics as cement boards, but generally are not as robust and may have specially treated edges. Generally, tile backer boards should not be used for roofing applications and with Hydrotech membranes.



## To summarize

There are several acceptable sheathing options for Hydrotech membranes. The below guidelines should be followed:

- General rule of thumb – roof boards for roofing applications and wall boards for wall applications. Not all boards have been tested & certified for roof assemblies, and some portion of the wall is generally considered part of the roof.
- Always confirm with the manufacturer of the sheathing in question that they take no exception to the application of the membrane.
- If an unacceptable board is already installed on a project, the board should be removed and replaced with appropriate substrate similar to the detail below.
- If the roof assembly requires a non-combustible substrate for a Class A assembly, then the wall sheathing must be non-combustible (typically the height of the flashing).
- Proper installation and securement of the board is the responsibility of the design team and board manufacturer.
- Hydrotech's Tech Department is here to review any products that may be considered for these types of installations. Also, there can be warranty implications when a non-roof board is used in a roof assembly.



Feel free to contact Hydrotech's Technical Department with any questions you might have.

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