

# **Exterior Sheathing**

#### First Quarter 2018

As a key component in wall construction, exterior sheathing serves as a means of joining and stabilizing the building structure. In addition to being a critical structural component for providing lateral bracing and stability against wind & building loads, exterior sheathing serves as a surface for weatherproofing.

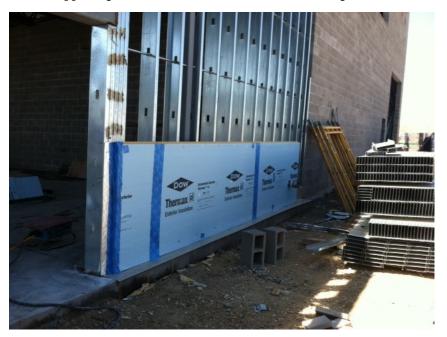
Wall framing, and accordingly exterior sheathing, continues to evolve as the building façade skin morphs in response to industry changes, economic factors and code requirements.

Conventional, common sheathing materials, i.e. exterior grade plywood, oriented strand board (OSB), wafer board, and fiberglass-faced gypsum (Densglass) make up most of the current market. In our Third quarter 2017 Newsletter, we discussed concerns for the use of OSB and wafer board. With gypsum and plywood boards costing typically double that of OSB and wafer boards, their use is primarily cost driven.

**TABS Wall Systems** recommends the use of Densglass and/or 5/8" - 3/4" exterior grade plywood.

## **Insulated Sheathings**

The rapid growth of wall designs to meet concerns for continuous insulation has spawned a whole new generation of products – the insulated sheathing. Manufacturers such as Carlisle Coatings & Waterproofing, Hunter, Dow, Metalspan and others, are marketing composite systems that serve as the sheathing, air & moisture barrier and continuous insulation as a single component. These insulated sheathings generally provide load deflection resistance suitable for adhered thin veneers; i.e. minimum 23-25 psi. Architects and design professionals must still design walls with structural attachments for fastening adhered thin veneers back to stud framing or other structural framing elements. Identifying fasteners that can span the thickness of such insulated sheathings, while also supporting cantilevered loads, becomes the challenge.



Dow Thermax



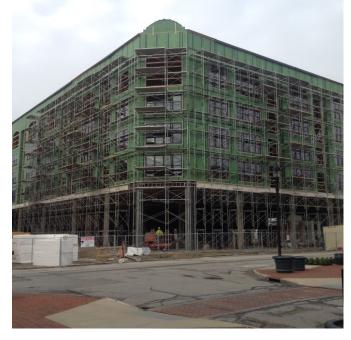
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**TABS Wall Systems** has expanded their supply of fasteners to meet the needs of the exterior continuous insulation market trend. Fastener lengths and diameter requirements can be sourced. **TABS** suggests that the specifier consult with us on all installations with exterior insulation thicknesses greater than 2".

## Pre-coated Water Resistive Wood Panels

Structural engineered wood panels with built in water resistant barrier coatings continue to increase in market share. Products such as the ZIP System TM are marketed as wood sheathings that do not require a building wrap. With seams taped from panel to panel, these products are marketed as cost savers due to faster installation by essentially eliminating a two step process. Architects and design professionals should develop a comfort level with these types of products relative to fastener penetrations and "self-healing" properties.





### Specifying for Performance

Zip Systems

Densglass

It's fairly standard across all adhered thin veneer systems' installations that maximum deviations from flat planes be no more than <sup>1</sup>/<sub>4</sub> " in 10'. The most common issue in the field relates to framing and the attached sheathing. Too often, the framing contractor is not aware of the significance of flush seams at adjoining sheathing sections/panels. Raised edges will telegraph out to the adhered veneer system, creating noticeable waviness. In many cases, the framing installer treats their installation as they would on a conventional brick wall where there's a cavity.

Architects should address this in their specifications for framing. In addition, this matter should be discussed at mock-ups and site progress meetings.