DuPont™ Thermax™ Wall System

Installation Procedures

SEQUENCING OVERVIEW

Installation of the DuPont™ Thermax™ Wall System can begin once the structural steel and exterior wall steel studs have been installed and braced.

By using the all-steel bracing design, a layer of exterior gypsum drywall will not be necessary so the drywall or masonry contractor can begin immediately installing boards of DuPont™ Thermax™ XARMOR™ (ci) Exterior Insulation directly on the exterior of the steel studs (insulation can be left exposed for 180 days). As the contractor applies additional boards, DuPont™ LiquidArmor™ Flashing and Sealant is adhered to adjoining board joints and at pre-determined thru-wall penetrations. Windows and other openings are flashed following the removal of excess Thermax™ XARMOR™ (ci) in the window opening areas of the envelope.

With the building closed in, the structure has an insulated and weatherized envelope, which will allow for work to progress quickly on the interior of the structure. By completing this step, a building can begin to be conditioned, which can speed up the work of other trades beyond the exterior walls.

Once sections of insulation boards and seam treatment are in place, a contractor can begin installing the cladding attachment.

If any of the attachments are near a board joint, cover the jointed area with LiquidArmor™ Flashing and Sealant before installing the cladding attachment.

See Table 1 and respective figures for recommended cladding attachment methods.

Be sure to install any necessary floor-line firestop in the stud cavity. As an optional component, DuPont-approved spray foam can now be applied in the stud cavity, covering the fire-stop (if installed) back to the floor edge to complete the air barrier, to further seal and insulate the envelope. DuPont-approved spray foam should be applied after the cladding attachment is in place.

This system of products provides scheduling overlaps that can save significant time on a project, minimizing negative impacts and providing an opportunity for multiple contractors to engage in finishing the exterior wall throughout the project.

Figure 1: Fastening Pattern for Thermax™ XARMOR™ (ci) Exterior Insulation

Installations Information

8’ Thermax XARMOR™ (ci) Board with 16” o.c. Stud Spacing

*DuPont™ Thermax™ (ci) Exterior Insulation and DuPont™ Thermax™ Sheathing can also be used in the Thermax™ Wall System.
1. As depicted in Figure 1, fasten boards of DuPont™ Thermax™ XARMOR™ (ci) to each support with fasteners spaced 12" o.c. at perimeter of wall and 16" o.c. in the field using TRUFAST® Walls (formerly Rodenhouse Inc.) Thermal-Grip® Fasteners or other DuPont approved fastener. Set back perimeter fasteners 3/8" from board edges and ends. One approved fastener/washer can be placed to bridge a maximum of two board edges. Drive fasteners to bear washer tight and flush with surface of insulated sheathing.

2. For optimum performance and to create a water-resistive barrier, seal all end and edge joints, and thru-wall penetrations, such as window and door openings, with DuPont™ LiquidArmor™ Flashing and Sealant. Visit our website at building.dupont.com to download detailed installation guides for each of our flashing options.

3. It is critical to apply the correct thickness and width of LiquidArmor™ Flashing and Sealant centered over the insulation board joints:
   - LiquidArmor™ QS Flashing and Sealant: 50+/−5 wet mil, 2” min.
   - LiquidArmor™ LT Flashing and Sealant: 30+/−5 wet mil, 1” min.
   - LiquidArmor™ CM Flashing and Sealant: 50+/−5 wet mil, 2” min.

Fasteners and washers along the board joints should also be completely covered with LiquidArmor™ Flashing and Sealant. Please refer to Installation Procedures for LiquidArmor™ Flashing and Sealant for additional requirements for each of the LiquidArmor™ Flashing and Sealant options.

7. Thermax™ XARMOR™ (ci) boards should be properly repaired if damaged during installation. Repairs may include applying flashing over a small hole or filling a large hole with a piece of the insulation board and then sealing with flashing.

8. Once sections of insulation boards and flashing are in place, a contractor can begin installing the cladding attachment. See Table 1 for attachment options and how to seal.

9. If necessary due to stud placement, the floor line fire-stop should already be installed. Finally, DuPont-approved spray foam can be applied to the interior of the stud cavity by a qualified SPF applicator.


### TABLE 1: Thermax™ Wall System Sealing Options Summary

<table>
<thead>
<tr>
<th>Attachment Type</th>
<th>LiquidArmor™ QS* Flashing and Sealant</th>
<th>LiquidArmor™ LT* Flashing and Sealant</th>
<th>LiquidArmor™ CM* Flashing and Sealant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Figure 2</td>
<td>Z-Girt, Horizontal (surface mounted)</td>
<td>Cured (1) &amp; on fasteners (3)</td>
<td>Wet (2) or cured (3) &amp; on fasteners (3)</td>
</tr>
<tr>
<td>Figure 3</td>
<td>Z-Girt, Vertical (surface mounted)</td>
<td>Cured (1) &amp; on fasteners (3)</td>
<td>Wet (2) or cured (3) &amp; on fasteners (3)</td>
</tr>
<tr>
<td>Figure 4</td>
<td>Hat Channel, Horizontal</td>
<td>Cured (1) &amp; on fasteners (3)</td>
<td>Wet (2) or cured (3) &amp; on fasteners (3)</td>
</tr>
<tr>
<td>Figure 5</td>
<td>Hat Channel, Vertical</td>
<td>Cured (1) &amp; on fasteners (3)</td>
<td>Wet (2) or cured (3) &amp; on fasteners (3)</td>
</tr>
<tr>
<td>Figure 6a</td>
<td>Over Flat Strap</td>
<td>Continuous over furring</td>
<td>Continuous over furring</td>
</tr>
<tr>
<td>Figure 6b</td>
<td>Under Flat Strap</td>
<td>Cured (1) &amp; on fasteners (3)</td>
<td>Wet (2) &amp; on fasteners</td>
</tr>
<tr>
<td>Figure 7</td>
<td>Wood Furring</td>
<td>Cured (1) &amp; on fasteners (3)</td>
<td>Wet (2) &amp; on fasteners</td>
</tr>
<tr>
<td>Figure 8a &amp; 8b</td>
<td>Knight Wall HCI* (4)</td>
<td>Cured (1) &amp; on fasteners (3)</td>
<td>Wet dipped screws (3)</td>
</tr>
<tr>
<td>Figure 9</td>
<td>Knight Wall Cl® (4)</td>
<td>Contact us</td>
<td>Wet dipped screws (3)</td>
</tr>
</tbody>
</table>

(1) “Cured” - Flashing is applied along the stud lines and cured at least 24 hours prior to fastening cladding attachment. This can be done at the same time the insulation board joints are sealed.
(2) “Wet” - Flashing is wet applied under the attachment system. This can be applied directly to the attachment system before setting it and fastening to the wall.
(3) “on Fasteners” – Flashing is wet applied to each cladding attachment fastener after cladding attachment is fastened to the wall.
(4) Knight Wall attachments are registered and trademarked by Knight Wall Systems. Follow all manufacturer installation guidelines.

Follow all manufacturer installation guidelines.
The sample detail above illustrates DuPont™ LiquidArmor™ Flashing and Sealant applied underneath horizontal Z-girt and over fasteners. Options include:
- DuPont™ LiquidArmor™ QS (cured)
- DuPont™ LiquidArmor™ LT (wet)
- DuPont™ LiquidArmor™ CM (cured)

The sample detail above illustrates DuPont™ LiquidArmor™ Flashing and Sealant applied underneath vertical Z-girt and over fasteners. Options include:
- DuPont™ LiquidArmor™ QS (cured)
- DuPont™ LiquidArmor™ LT (wet or cured)
- DuPont™ LiquidArmor™ CM (cured)

The sample detail above illustrates DuPont™ LiquidArmor™ Flashing and Sealant applied underneath horizontal Hat Channel and over fasteners. Options include:
- DuPont™ LiquidArmor™ QS (cured)
- DuPont™ LiquidArmor™ LT (wet)
- DuPont™ LiquidArmor™ CM (cured)

The sample detail above illustrates DuPont™ LiquidArmor™ Flashing and Sealant applied underneath vertical Hat Channel and over fasteners. Options include:
- DuPont™ LiquidArmor™ QS (cured)
- DuPont™ LiquidArmor™ LT (wet or cured)
- DuPont™ LiquidArmor™ CM (cured)
The sample detail above illustrates DuPont™ LiquidArmor™ Flashing and Sealant applied over flat strap furring. Options include:
- DuPont™ LiquidArmor™ QS
- DuPont™ LiquidArmor™ LT
- DuPont™ LiquidArmor™ CM

The sample detail above illustrates DuPont™ LiquidArmor™ Flashing and Sealant applied underneath flat strap furring and over fasteners. Options include:
- DuPont™ LiquidArmor™ QS (cured)
- DuPont™ LiquidArmor™ LT (wet)
The sample detail above illustrates DuPont™ LiquidArmor™ Flashing and Sealant applied underneath wood furring and over fasteners. Options include:

- DuPont™ LiquidArmor™ QS (cured)
- DuPont™ LiquidArmor™ LT (wet)

Visit manufacturer website for installation instructions.

The sample detail above illustrates DuPont™ LiquidArmor™ LT Flashing and Sealant wet dipped screws with Knight HCI™.

Visit manufacturer website for installation instructions.
The sample detail above illustrates DuPont™ LiquidArmor™ LT Flashing and Sealant wet dipped screws with Knight CI®. Visit manufacturer website for installation instructions.