ZIPsystem®
ROOF SHEATHING

A REVOLUTION IN ROOFING®

FROM THE
CREATORS OF **AdvanTech**

ZIP System® Roof Sheathing
INSTALLATION MANUAL

another innovation from **HUBER** ENGINEERED WOODS

ZIP System® Roof Sheathing
INSTALLATION MANUAL

Contents

ATTENTION: This installation guide is intended to provide general information for the designer and end user. The following guidelines will help you properly install the ZIP System roof sheathing. We urge you and anyone installing this product to read these guidelines in order to minimize risk of safety hazards and to prevent voiding any applicable warranties. This manual is a general installation guide and does not cover every installation condition or requirement. Proper installation shall be deemed to mean the most restrictive requirement specified by Huber Engineered Woods (HEW), local building code provision, the model building code adopted by the local jurisdiction, the government agency having jurisdiction or the engineer or architect of record. It is solely your obligation to comply with all safety requirements and code compliance. For additional information contact Huber Engineered Woods LLC. As with any roof installation, wear fall protection per OSHA Installation Guidelines.

ZIP System® Safety Guidelines
- Follow all OSHA regulations and any other safety guidelines and safety practices (e.g., the American Plywood Association's Basic Roof Safety Tips) during roof installation and construction.
- Use approved safety belts and/or harnesses or fall protection equipment.
- Install ZIP System panels and tape only in dry conditions and on dry surfaces. Do not install in rain, snow, frost or other slippery conditions.
- Wear rubber-soled or other high-traction footwear while installing ZIP System roof sheathing products. Do not wear footwear with worn soles or heels.
- Ensure that the roofing surface is free from oil or chemical stains, sawdust, dirt, tape release liner and other debris, and is free from all tools, electric cords, clothing, etc., that might create a tripping hazard.
- Install temporary toe boards along the ZIP System roof sheathing surface.

What Is ZIP System Roof Sheathing?
ZIP System roof sheathing is a wood structural panel with a built-in moisture-resistive barrier that eliminates the need for felt paper*. Simply install the panels, tape the seams, and you have a structural roof panel and code recognized underlayment all in one.

ZIP System roof sheathing is approved for use under asphalt-fiberglass shingles, metal tiles and panels, clay and concrete tiles, slate and slate-type shingles, wood shakes and wood shingles on buildings of type V construction and construction permitted under the IRC (visit zipsystem.com for updates). ZIP System roof sheathing should be covered by approved roof coverings within 180 days of installation.

ZIP System roof sheathing includes:
- ZIP System roof sheathing panels with built-in Precipitek™ moisture barrier with preprinted fastening and tape guides
- ZIP System tape

Storage and Handling:
- Set panel stack on three supports (stickers) to keep off the ground.
- Outdoors, cover bundled or stacked panels loosely with waterproof protective material.
- Anchor covers on top of the stack, but keep away from sides and bottom to ensure good air circulation.
- In high moisture environments, cut banding on the panel stack to prevent edge damage.

ZIP System® Roof Sheathing Notes and Limitations:
- Do not use on walls.
- Do not use on roofs with slopes under 2/12 pitch.
- Do not use abutted against brick or masonry without providing a minimum of 1/2" gap.
- Do not use H-clips with ZIP System roof sheathing. They are not required by code with this product and they may interfere with the tape seal.* Check local building code requirements for roof sheathing fastening details in high-wind regions.
- Do not use ZIP System tape to permanently seal around circular projections (plumbing vents, pipes, curved walls, etc.).
- Do not install ZIP System tape in temperatures less than 20° F.
- ZIP System products are not recommended for manufactured housing applications that are built under a federal building code administered by the U.S. Department of Housing and Urban Development (HUD).
- Do not use in Structural Insulated Panels (SIPs).

Secondary Coatings
Do not apply secondary coatings or treatments to ZIP System roof sheathing panels with the exception of permeable laminated radiant barrier foil, permeable radiant barrier paint, or approved fire resistant coatings applied to the non-overlay side of the panel. For a radiant barrier foil or coating to be considered permeable, it must have an applied permeance of five perms or greater as tested by the ASTM E96 wet cup standard. For a radiant foil, the permeance evaluation would include any adhesive and/or backer used to laminate a foil. For a radiant paint/coating, the permeance evaluation should be conducted at the applied thickness of the paint/coating. Fire resistant coatings must be tested and approved by HEW for use with ZIP System panels.

Re-roofing
When original shingles or other roof coverings are removed and replaced on an existing ZIP System roof sheathing assembly, a code-recognized roofing underlayment must be installed on the roof sheathing prior to installation of the new shingles/covering.

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*ZIP System® Roof Sheathing replaces only the first layer of a multi-underlayment system.

* H-clips are not required by code with 1/2 performance category 32/16 span-rated panels, if the framing does not exceed 24" o.c. and the total load does not exceed 80 PSF.
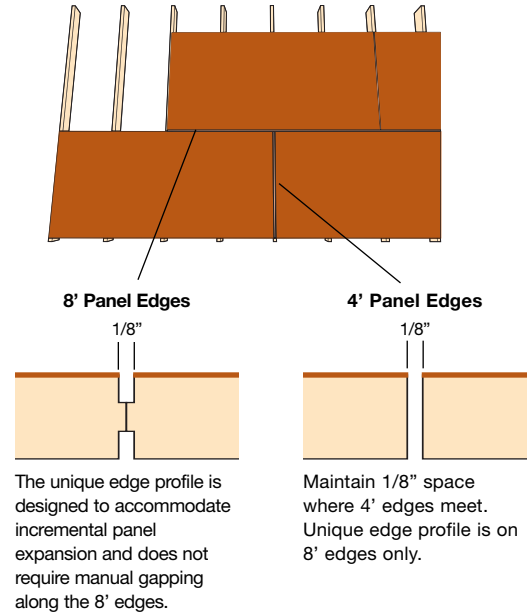
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ZIP System® Roof Sheathing Installation

Overview: ZIP System roof sheathing is composed of ZIP System roof sheathing panels and ZIP System seam sealing tape. ZIP System® Roof Sheathing panels should be fully installed before the seam sealing tape is applied. In general, the ZIP System roof sheathing panels should be installed from the lowest point on the roof to the highest. Although not required, when taping the panel seams, the ZIP System tape is best installed from the highest portion of the roof to the lowest to avoid excessive foot traffic on top of the tape. The following installation steps are presented as guidelines and a general outline of the installation process. These are manufacturer installation recommendations – please visit zipsystem.com for a library of flashing and installation details. You are fully and solely responsible for all safety requirements. Good construction and safety practices should be followed at all times.

Step 1.

- Ensure that the roof panel surface is dry and clean of any nails, sawdust, or other debris or protrusions prior to installing or walking on the panels.
- After ensuring compliance with all OSHA and local code safety guidelines, install ZIP System roof sheathing panels with the sienna red surface up. The long edge (8') should be oriented perpendicular to the framing members, and panels should be installed with the 4' edge seams staggered a minimum of 24".
- 1/8" spacing between square edges of all adjacent panels is recommended, in accordance with industry standards for wood sheathing. (Tongue & Groove panels are designed to self-space and do not require manual spacing on the 8' edges.)

8' Panel Edges

1/8"

The unique edge profile is designed to accommodate incremental panel expansion and does not require manual gapping along the 8' edges.

4' Panel Edges

1/8"

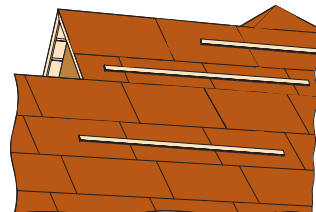Maintain 1/8" space where 4' edges meet. Unique edge profile is on 8' edges only.

Step 2.

- Ensure that ZIP System panels span at least three framing members and a framing member supports the entire 4' edge of the panels.
- Fasten the ZIP System roof sheathing panel to the framing members with code approved fasteners spaced at the appropriate edge and intermediate spacing. It is the responsibility of the general contractor to verify proper fastener type and spacing prior to installation.
- Apply the fasteners 3/8" from the panel ends and corners.
- An ideal installation would be where fastener heads are flush with the panel surface. However, due to variations in materials and limitations on equipment, this may be difficult to achieve in some situations. It is not required to tape over overdriven fasteners unless the fastener head creates a hole through the entire panel thickness. Please see the technical tip, "*Overdriven Fasteners in ZIP System Roof and Wall Sheathing*," for more information.

Step 3.

Install temporary toe boards as necessary when applying the ZIP System roof sheathing panels up the slope of the roof planes.
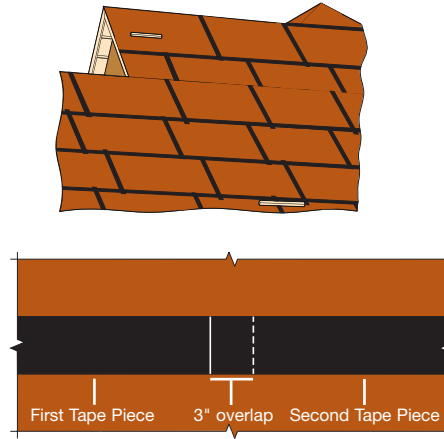
ZIP System Tape™ Installation - Panel Seams

Apply ZIP System tape after all ZIP System roof sheathing panels are fully fastened to roof-framing members. Only ZIP System tape should be used to seal the seams of ZIP System panels. Ensure that the panel surfaces are dry and free of any nails, sawdust and other debris, or protrusions. Avoid stepping on tape in high temperature environments. **ZIP System tape is a contact tape that requires pressure for an adequate seal.**

Step 1.

- Working from the highest sections of the roof, apply ZIP System tape to each of the vertical and horizontal seams.
- Ensure that the tape is centered over the seam within +/- 1/2" to provide adequate coverage and to ensure that wrinkles in the tape are minimized.
- Ensure that tape lengths are continuous across the 8' horizontal edge of the panels. If splices are unavoidable, create an overlapping splice of at least 3". Apply moderate pressure onto the surface of the tape to ensure a secure bond between the panel and the tape.
- Use ZIP System tape gun or tape roller to apply pressure to the tape and smooth out any wrinkles.
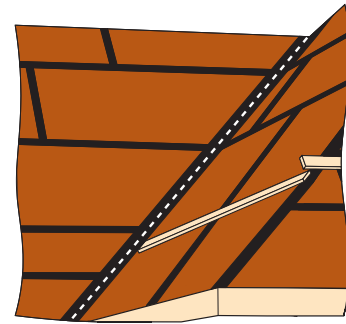- Take special care to remove any voids and/or trapped air at splice areas and T-joints.

First Tape Piece   3" overlap   Second Tape Piece

Step 2.

- For valley areas of framing, we recommend you use 6" wide ZIP System tape. This tape is wider than panel seam tape and is designed to give you optimal protection in valley areas.
- Starting from the bottom and working your way up, apply one continuous piece of 6" tape so that the center of the tape is over the valley seam.
- Use the tape gun or tape roller to apply pressure to the tape to ensure proper contact with the panel and to eliminate any wrinkles that might have occurred in the tape. Take special care to seat tape completely into the valley.

Note:

- **It is important to pay extra attention to valley taping as water is directed toward the valleys during rain events.**
- **Self-adhering ice and water barriers may be required by code. ZIP System tape is not considered a replacement for self-adhering ice and water barriers. Therefore, when self-adhering ice and water barriers are required, they should be installed in addition to ZIP System tape.**
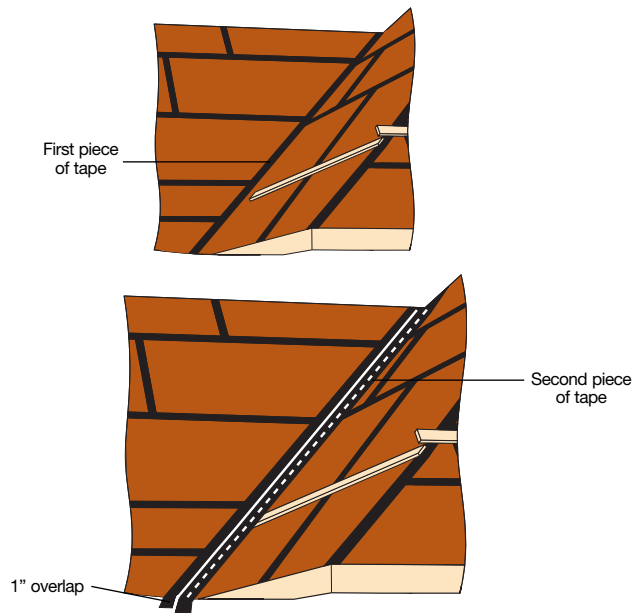
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ZIP System Tape™ Installation - Panel Seams (continued)
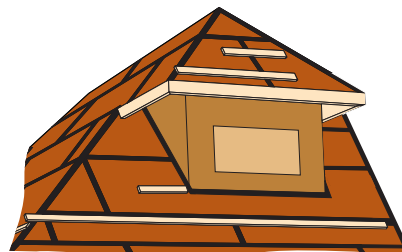

Step 3.

- If 6" ZIP System tape is not available, use two continuous pieces of 3.75" ZIP System panel seam tape over the entire length of the valley seam, overlapping the pieces on the valley seam by at least 1".
- Starting from the bottom, install the first piece of tape overlapping the valley seam by at least 1".
- Use the tape gun or tape roller to apply pressure to the tape to ensure proper contact with the panel and to eliminate any wrinkles that might have occurred in the tape.
- Apply the second piece of tape, overlapping the first piece in the valley seam by 1".
- Repeat use of the tape gun or roller to make sure the tape is adequately adhered and tightly pressed into the valley seam.

Note:

- **It is important to pay extra attention to valley taping as water is directed toward the valleys during rain events.**
- **Self-adhering ice and water barriers may be required by code. ZIP System tape is not considered a replacement for self-adhering ice and water barriers. Therefore, when self-adhering ice and water barriers are required, they should be installed in addition to ZIP System tape.**

First piece of tape

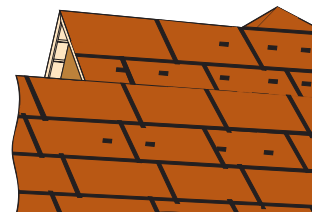Second piece of tape

1" overlap

Step 4.

- To provide temporary weather protection to roof/wall intersections of dormers or other wood-sheathed projections, apply 2" of the tape width up the vertical projection from where it intersects with the roof. The remaining tape width can be adhered to the ZIP System roof sheathing panels.
- Use the tape gun or tape roller to apply pressure to the tape and smooth out any wrinkles.

Step 5.

- Install ZIP System tape over hips and ridges by centering the tape over the peak seam. Apply tape in sufficient length to completely extend the length of the hip or ridge.
- Starting from the lowest point of the hip and working up, press tape into place keeping tape centered over the hip. Apply moderate pressure onto the surface of the tape to ensure a secure bond between the panel and the tape.
- Cut ridge tape as required for ventilation prior to installing ridge vent.

Step 6.

Tape over toe board nail holes once the toe boards are removed, working from the highest toe boards to the lowest.

Roof Covering Installation Instructions

ZIP System roof sheathing is a code recognized sheathing and underlayment and is approved for use with the following roof coverings:
- Asphalt-fiberglass Shingles
- Metal Roofs (shingles and panels)
- Clay Tile
- Concrete Tile
- Slate and Slate-type Shingles
- Wood Shingles
- Wood Shakes

When installing roof coverings, follow applicable codes and manufacturer's suggested instructions. Some roof coverings require a slip-sheet in addition to conventional underlayment. Where slip-sheets are required, they should be installed over ZIP System roof sheathing panels.

Note: Visit zipsystem.com for updates and installation details.

Asphalt-fiberglass Shingles
Apply asphalt shingles directly to ZIP System roof sheathing. For roofs with a slope of 2/12 or greater but less than 4/12, additional underlayment may be required. Install asphalt-fiberglass shingles according to applicable codes and manufacturer's installation instructions.

Metal Roof Coverings
Metal roof coverings may be applied to ZIP System roof sheathing provided that the roof covering manufacturer's installation instructions and applicable codes are followed.

Fasteners used to secure the ZIP System roof sheathing panels to supporting framing must be compatible with the specific metal roof covering used. Galvanized fasteners shall be used with galvanized roof coverings, aluminum-zinc coated fasteners shall be used with aluminum-zinc coated roof coverings and 300 series stainless steel fasteners shall be used with copper roofs. Stainless steel fasteners are acceptable with all metal roof types.

In addition, metal roof flashing shall also be made of a material compatible with the specific metal roof covering used. Apply metal shingles on roofs with slopes of 3/12 or greater.

Clay and Concrete Tile Roof Coverings
ZIP System roof sheathing is intended to replace the first layer in a two-layer or multi-layer underlayment system. ZIP System roof sheathing is approved for hot mopping applications. A second layer of underlayment may be hot mopped to the ZIP System roof sheathing. When installing clay or concrete tile roof coverings, follow the installation recommendations of FRSA/TRI 07320. Install tile roofs according to applicable codes and manufacturer's installation instructions.

Slate and Slate-type Shingles
Apply slate and slate-type shingles on roofs with slopes of 4/12 or greater. Install slate and slate-type shingles according to applicable codes and manufacturer's installation instructions.

Wood Shingles
ZIP System roof sheathing is intended to replace the first layer of underlayment required by the IBC and/or the IRC. Additional layers of underlayment may be required by code depending on the local climate. Apply wood shingles on roofs with slopes of 3/12 or greater. Install wood shingles according to applicable codes and manufacturer's installation instructions.

Wood Shakes
ZIP System roof sheathing is intended to replace the first layer of underlayment required by the IBC and/or the IRC. Additional layers of underlayment may be required by code depending on the local climate. ZIP System roof sheathing is not to be construed as a replacement for interlayment. Apply wood shakes on roofs with slopes of 4/12 or greater. Install wood shakes according to applicable codes and manufacturer's installation instructions.