



ENGINEERED
WOODS



The five-in-one system for sealing and insulating the building envelope

DESCRIPTION

BASIC USE AND APPLICATIONS

ZIP System® R Sheathing insulating sheathing is a one-of-a-kind layered product engineered to insulate and protect wall assemblies in a single application. ZIP System R Sheathing combines the strength, weather-resistive, and air barrier qualities of ZIP System Sheathing with the thermal resistance of polyisocyanurate foam insulation.

ZIP System R Sheathing provides a combined R-value of 3.6 or 6.6 on the outside of wall framing in addition to wall cavity insulation. One panel delivers thermal, air, and moisture resistance, while providing strength and durability. ZIP System Sheathing with its built-in protective overlay eliminates the need for building wrap. Install the panels, tape the seams with ZIP System tape, and the building is rough dried-in. A wide range of wall claddings install directly over ZIP System R Sheathing to finish the exterior.

ZIP System R Sheathing uses a tough, phenolic resin-impregnated overlay to provide permanent weather resistance along with a proprietary seam tape that is extensively tested for long-term adhesion and flexibility.

This material combination meets performance requirements for Grade D weather-resistive barriers in accordance with ICC Acceptance Criteria AC308. ZIP System R Sheathing may be used for walls on buildings of Type V construction and other construction permitted under the International Building Code and International Residential Code.

AVAILABLE SIZES

ZIP System R Sheathing panels are available in nominal 4 by 8 foot sheets. The wood structural panel layer is approximately 47-15/16 by 95-7/8 inches, while the polyisocyanurate foam bonded to the structural panel layer is sized at a full 48 by 96 inches. This allows for proper gapping between the wood panels, with a 1/16 to 1/8 inch foam overhang located on two of four panel edges to ensure tightly-fitted insulation. Panels are available in the following thicknesses:

- Nominal 1 inch thick: 7/16 inch thick ZIP System Panel plus 1/2 inch thick foam with a combined R value of 3.6
- Nominal 1-1/2 inch thick: 7/16 inch ZIP System Panel plus 1 inch thick foam with a combined R value of 6.6

Third party independent compliance testing of ZIP System R Sheathing by is by Timberco, Inc. (TECO).



ZIP System R Sheathing Benefits

Structure and Durability	<ul style="list-style-type: none"> • Nailable wood base • Can be used to resist shear (see ESR-3373 for conditions)
Built-in Water Resistive Barrier	<ul style="list-style-type: none"> • Eliminates Costly Rework • Instant Rough Dry-In
Continuous Air Barrier	<ul style="list-style-type: none"> • Reduces air leakage protecting the R-value of the insulation
Continuous Exterior Insulation	<ul style="list-style-type: none"> • Increases thermal performance • Controls thermal bridging
Ease of installation	<ul style="list-style-type: none"> • All-in-one product eliminates multiple installations

LIMITATIONS

ZIP System R-Sheathing is currently limited to wall applications only. For systems requiring multiple layers of water-resistive barriers, ZIP System R Sheathing is intended to replace only the first layer.

ZIP System R Sheathing is not recommended for use with adhesively-attached EIFS, but can be used with mechanically attached EIF systems.

SUSTAINABLE DESIGN CONTRIBUTIONS

- Low-Emitting Material: No added urea formaldehyde
- Sustainable Forestry Initiative Certified Wood: Harvested, transported, manufactured, and distributed utilizing sustainable practices
- Renewable Forest Resources: Composed of primarily young growth bio-based resources
- Regional Materials: Made in the United States at one of our 4 regional manufacturing facilities

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APPLICATION

SUBSTRATE

Before beginning installation, verify framing is properly spaced and aligned to continuously support panel edges.

PANEL INSTALLATION

Install ZIP System R Sheathing in accordance with:

- ZIP System R Sheathing Installation Manual
- ICC-ES ESR-3373
- Additional requirements of code officials

Install panels with moisture barrier surface facing out. Panels may be oriented vertically or horizontally. Refer to ZIP System R Sheathing Installation manual.

Tape Installation:

Install ZIP System tape in accordance with manufacturer's written instructions at panel seams, openings, and penetrations.

Install windows and associated window flashing in accordance with window manufacturer's instructions.

STORAGE AND HANDLING

Store and handle products according to manufacturer's written recommendations. Support panel bundles off the ground. Cover stored panels with weatherproof protective material; allow sides of protective material to remain loose to assure adequate air circulation. In high moisture conditions, cut bundle banding to prevent edge damage to panels. Factory applied packaging is intended only for protection during transit. Packaged units must be stored indoors or within a covered structure. Do not stack more than three units high.

AVAILABILITY

Huber Engineered Wood's ZIP System R Sheathing panels are manufactured at multiple locations in the U.S. They are available through distributors nationwide; visit zipsystem.com or contact Huber Engineered Woods for a retailer near you.

WARRANTY

ZIP System R Sheathing is furnished with a 30 year system warranty as well as a 30 year warranty against delamination and manufacturing defects, subject to published standard terms and conditions.

NOTES AND LIMITATIONS

ZIP System R-Sheathing should be covered with a code-complying exterior wall cladding within 180 days of installation. Do not install on roofs.

TECHNICAL SERVICES

Detailed information including product literature, test reports, installation instructions, and special applications is available through Huber Engineered Woods. Please visit zipsystem.com or call (800) 933-9220 ext. 2716 to speak to a technical representative.

AVAILABLE RESOURCES

Section 06 16 13 INSULATING SHEATHING guide specification for ZIP System R Sheathing products in CSI 3-part format is available from Huber Engineered Woods.

ZIP System R Sheathing Physical Properties		
Dimensional Stability	ASTM D2126	< 2%
Compressive Strength	ASTM D1621	20 – 25 psi
Water Absorption	ASTM C209 ASTM D2842	< 1% < 3.5%
Water Vapor Transmission	ASTM E96	< 1.0 perm
Flame Spread	ASTM E84	40 - 60
Smoke Developed	ASTM E84	50 - 170

ZIP System R Sheathing Performance Properties		
Thermal Resistance (R-value)	ASTM C1289*	3.6@1 in. 6.6@1-1/2 in.
Water resistance of coatings	ASTM D2247, at 14-day	Passed
Water Vapor Transmission	ASTM E96: panel overlay	12 – 16 perms
Water Penetration	ASTM E331	Passed
Air Barrier Assembly	ASTM E2357	0.037 L/s/sq. m
Wind Driven Rain	TAS 100, at 100 mph	Passed
Accelerated Weathering	ASTM G154	Passed

*LTTR for foam, with R-value of 7/16 inch OSB per ASHRAE Handbook- Fundamentals. For additional performance and installation information: Refer to ZIP System R Sheathing ICC-ES ESR-3373.

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