



ZIP SYSTEM® R-SHEATHING

MANUFACTURER

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BASIC USE AND APPLICATIONS

ZIP System® R-sheathing is an all-in-one structural panel with built-in exterior insulation. Featuring integrated moisture, air and thermal protection, ZIP System® R-sheathing completely reimagines traditional wall assemblies by streamlining exterior water, air and thermal management.

ZIP System® R-sheathing is only permitted in wall applications and eliminates the need for building wrap*. Once the panels are installed, the panel seams are taped with Huber’s ZIP System™ flashing tape, and the building is rough dried-in. ZIP System™ flashing tape is a pressure sensitive tape that must be rolled with a rubber-faced roller in order to achieve maximum bond to the panel.

ZIP System® R-Sheathing uses a phenolic resin-impregnated overlay to provide excellent weather resistance. ZIP System® relies on the proprietary seam tape, ZIP System™ flashing tape, to create the water resistive barrier and air barrier continuity from one insulated panel to the next to achieve a performance equivalency to Grade D paper in accordance with ICC Acceptance Criteria AC38. Additionally, ZIP System™ flashing tape has been extensively tested for long-term adhesion and flexibility as published in ESR-2227. A Polyisocyanurate foam is used to create the thermal break between the wood sheathing and the framing.

ZIP System® R-sheathing may be used for wall applications in Type V construction.

AVAILABLE SIZES

ZIP System® R-Sheathing panels are available in nominal 4’ x 8’, 9’ and 10’ sheets. The wood structural panel layer is approximately 47-15/16” x 95-7/8”, while the polyisocyanurate foam bonded to the structural panel layer is sized at a full 48” x 96”. This allows for proper gapping between the wood panels, with a 1/16” to 1/8” foam overhang located on two of four panel edges to ensure tightly fitted insulation. Panels are available in the following thicknesses:

	ZIP System (inch)	Foam Layer (inch)	Total Nominal Thickness (inch)
R-3	7/16	1/2	1
R-6	7/16	1	1.5
R-9	7/16	1-1/2	2
R-12	7/16	2	2.5

*ZIP System® R-Sheathing is intended to replace one layer of water resistive barrier. When two layers are required, one additional layer must be installed.



ZIP System® R-Sheathing Benefits	
Structure and Durability	<ul style="list-style-type: none"> - Nail-able wood base - Can be used to resist shear
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 cavity 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

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 one of our regional manufacturing facilities: Broken Bow, OK; Commerce, GA; Crystal Hill, VA; Easton, ME; Spring City, TN; and Shawinigan, QC

Third party independent compliance testing of ZIP System® R-Sheathing is by PFS Corporation, Inc. (PFS TECO).

SUBSTRATE

Before beginning installation, verify wood wall 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 official

Install panels with moisture barrier surface facing out allowing the foam to be in direct contact with the framing. Panels may be oriented vertically or horizontally. Refer to ZIP System® R-Sheathing Installation Manual for more information.

Fasteners:

Install fasteners and fastener spacing in compliance with Table 1 or Table 2 of ESR-3373 or ER-0482. Install fasteners 3/8-inch (9.5 mm) from panel edges. ZIP System® R-sheathing panels have a printed fastening guide for 16-inch (406 mm) and 24-inch (610 mm) on center framing location. When not used structurally, the fastening schedule should be no greater than 6-inches on the perimeter and no greater than 12 inches in the field.

Tape Installation:

Install ZIP System™ flashing tape in accordance with manufacturer's written instructions at seams, openings, and penetrations. Install windows and window flashing in accordance with window manufacturer's written instructions. Details of installation recommendations are available in AutoCAD and PDF formats at ZIPSystem.com or at Huberwood.com.

AVAILABILITY

Huber Engineered Wood's ZIP System® R-Sheathing panels are manufactured at multiple locations and are available through distributors nationwide. Visit huberwood.com or contact Huber Engineered Woods for a retailer near you.

WARRANTY

ZIP System® R-sheathing is furnished with a 30-year system warranty. Limitations and restrictions apply. View the ZIP System® [Residential Warranty](#), [Commercial Warranty](#) and/or [Homeowner Warranty](#) available at huberwood.com/warranties for more details.

NOTES AND LIMITATIONS

ZIP System® R-Sheathing should be covered with a code-recognized exterior wall cladding within 180 days of installation. ZIP System® R-Sheathing can only be used structurally with wood framed construction. When used with light-gauge metal framing, ZIP System® R-sheathing cannot be used as a part of the lateral shear resistance.

ZIP System® R-sheathing is not designed to be used as a part of a roof assembly.

TECHNICAL SERVICE

Detailed information including specifications, product literature, test reports, installation instructions, and special applications is available through Huber Engineered Woods. Please visit huberwood.com or call 800.933.9220 EXT 2716 to speak to a technical representative.

AVAILABLE RESOURCES

Section 06 16 13 INSULATING SHEATHING guide specifications for ZIP System® R-Sheathing products in CSI 3-part format are available at huberwood.com.

ZIP System R Sheathing Foam Insulation 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	< 1.0perm
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" 6.6@1-1/2" 9.6@2" 12.6@2-1/2"
Water Resistance of Coatings	ASTM D2247 (for 14 day)	Passed
Water Vapor Transmission Panel Overlay	ASTM E96	12-16 perms
Water Penetration	ASTM E331	Passed
Air Barrier Assembly	ASTM E2357	0.037 L/(s*m2)
Air Barrier Material	ASTM E2178	-0.0016 L/(s*m2)
Wind Driven Rain	TAS 100 (at 100 mph)	Passed
Accelerated Weathering	ASTM G154	Passed

*LTTR for foam, with R-value of 7/16" 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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