



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

ZIP SYSTEM® R SHEATHING

MANUFACTURER

Huber Engineered Woods LLC

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ZIPSystem.com • HuberArchitectLibrary.com

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-resistant 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 R 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-resistant barriers in accordance with ICC Acceptance Criteria AC38. ZIP System R Sheathing may be used for walls on buildings of Type V construction and other construction permitted under the International Residential Code.

AVAILABLE SIZES

ZIP System R Sheathing panels are available in nominal 4' x 8' 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:

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

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



ZIP System 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 Resistant 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.

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

APPLICATION

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 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 all manufacturer's written instructions at panel seams, openings and penetrations.

Install windows and associated window flashing in accordance with all window manufacturer's instructions. Details of installation recommendations are available in AutoCAD and .pdf formats at ZIPSystem.com and HuberArchitectLibrary.com.

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 or light gauge metal framing.

ZIP System R Sheathing is currently limited to wood-framed wall applications only. DO NOT use on roofs or light gauge metal framing. 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 should not be used with adhesively attached EIFS, but can be used with mechanically attached EIF systems.

TECHNICAL SERVICES

Detailed information including specifications, product literature, test reports, installation instructions and special applications is available through Huber Engineered Woods. Please visit ZIPSystem.com or call 800.933.9220 x2716 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 is available at ZIPSystem.com or HuberArchitectLibrary.com.

ZIP System R Sheathing Foam Insulation Properties

Dimensional Stability	ASTM D2126	< 2%
Compressive Strength	ASTM D1621	20-25 psi
Water Absorbtion	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" 6.6 @ 1-1/2"
Water Resistance of Coatings	ASTM D2247 (at 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 E2176	-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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