

## THEY WON'T ALWAYS SEE IT...



## ...BUT THEY'LL BE GLAD IT'S THERE.



Your homeowners might never see the Huber Engineered Woods products you install. But they will always feel their benefits – greater indoor comfort, quiet, solid floors and lasting peace of mind.

We hold our products to a higher standard, so you can too. Your beautiful surfaces deserve an exceptional base. And your homeowners, an exceptional home.



4.....Huber Engineered Woods



6.....AdvanTech® Flooring and Sheathing

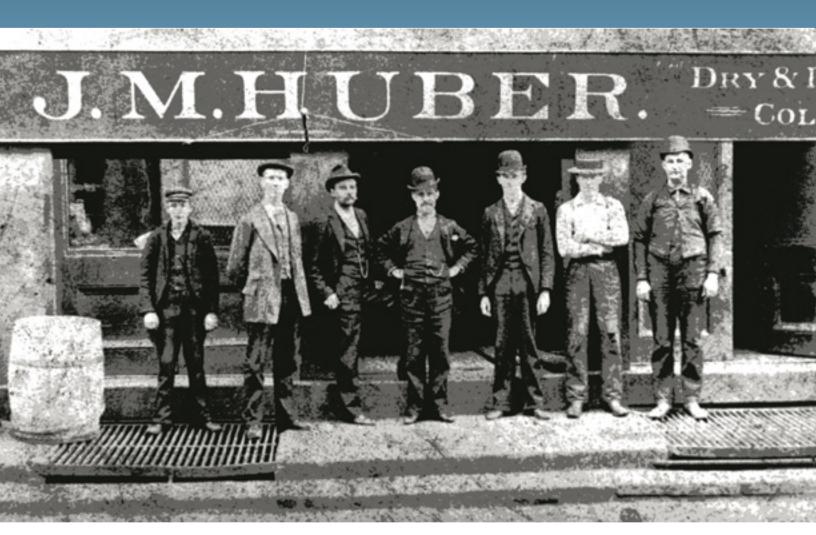


20....ZIP System® Sheathing and Tape



36....Sustainable Practices

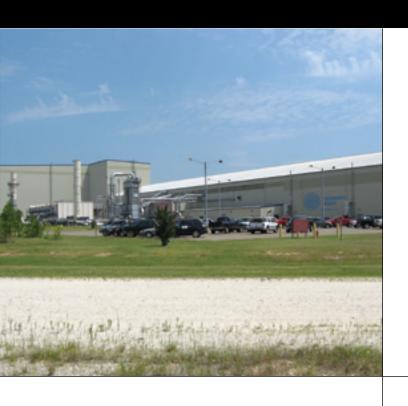
# A TRADITION OF STRONG, RESPONSIBLE BUILDING.



### A Tradition of Strong, Responsible Building

Founded in 1883, the J.M. Huber Corporation has grown to be one of the largest family-owned companies in the U.S. We're now a global company with approximately 4,000 employees in more than 20 countries. We are guided by a spirit of creativity and innovation that transforms ideas into products that meet the challenges of an evolving world. And we do all this while honoring a commitment to the Huber Principles:

- Environmental Health & Safety (EHS) Sustainability
- Ethical Behavior
- Respect for People
- Excellence

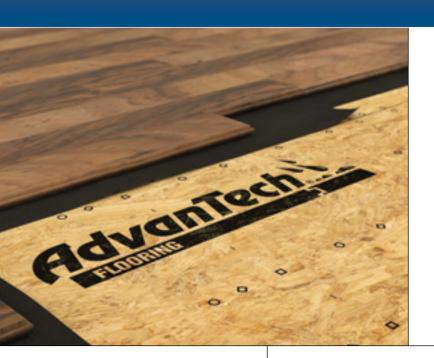


At Huber Engineered Woods, we create innovative, high performance and environmentally responsible products that allow your roofs, walls and floors to live up to their full potential.

Our engineered wood sheathing and subfloor products help homes and buildings meet today's increasingly demanding codes and discerning property owners, while allowing builders to differentiate from their competition. Our products are specifically engineered to enhance the performance of the building and the lives of the people who live and work inside them – for every draft they'll never feel, and every creaking floor they'll never hear.



## GIVE YOUR FLOORS THE BASE THEY DESERVE.



### **FLAT OUT BEST™**

AdvanTech® flooring panels stand up to the toughest jobsite conditions during a home's construction and provide homeowners with a solid-feeling, quiet floor for years to come.

Build with award-winning AdvanTech® subfloors and rest assured you'll get the most from your subfloors and everything you build on top of them.









### **Built To A Higher Standard**

AdvanTech flooring is the only wood structural panel substantiated by third party evaluation services for published design values for strength, stiffness and fastener holding power above PS-2 minimums. These values are documented in ESR-1785; visit www.icc-es.org for the full report.

### **Lifetime Limited Warranty**<sup>4</sup>

Backed by a lifetime limited warranty, AdvanTech flooring delivers performance you can trust.

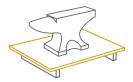
### No Sanding Guarantee<sup>4</sup>

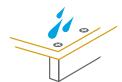
AdvanTech® panels will stand up to your most demanding jobsites and are backed by a 500-day no-sanding guarantee.<sup>4</sup> Say goodbye to swelling, cupping and delamination.

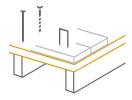
### **Voted #1 In Quality**

Builders from across the nation have voted AdvanTech flooring #1 in quality in its category every year for over a decade. That's a reputation you can build on.

# ENGINEERED TO BRING PERFORMANCE, QUALITY AND CONFIDENCE INTO EVERY FLOOR.











### **Long Lasting Strength and Stiffness**

High wood density, paired with advanced engineering, provide the bending strength and stiffness needed to deliver a quiet, stiff floor.

### **Defends Against Moisture**

Advanced moisture-resistant resins seal every strand of wood, for outstanding water resistance and panels that won't swell, delaminate or cup.

### **Fastener Holding Power Reduces Floor Squeaks**

The high wood density and advanced resins inside AdvanTech® flooring securely hold floor fasteners in place, helping to reduce nail pops and floor squeaks.

### **Installation Speed and Ease**

Consistent manufacturing, plus pre-printed fastening guides and a precisely engineered tongue and groove profile, help ensure every panel of AdvanTech flooring installs quickly and easily.

### Structural 1

AdvanTech® flooring and sheathing panels are tested and marked as Structural 1 to satisfy the most demanding of specifications.<sup>9</sup>

AdvanTech® flooring*								
Performance Category	Panel Size	PS-2 Span Rating	Code Evaluation Report	Edge Profile	Panel Grade	Approx. Weight Per Panel**	Panels Per Unit	
19/32	4' x 8'	20 oc	х			66 lbs.	55 pcs.	
23/32	4' x 8'	24 oc	ESR-1785	T&G		78 lbs. 96 lbs. 109 lbs.	45 pcs.	
7/8	4' x 8'	32 oc	Х		Structural 1		40 pcs.	
1	4' x 8'	32 oc	х				35 pcs.	
1-1/8	4' x 8'	48 oc	×			125 lbs.	30 pcs.	

<sup>\*</sup> Net face width is 47-1/2" on tongue and groove panels.

<sup>\*\*</sup> Estimated panel weight. Actual weight may vary by mill.



# ESR-1785, BECAUSE QUALITY HOMES DEPEND ON QUALITY SUBFLOORS.



# HIGHER STANDARD ESR-1785

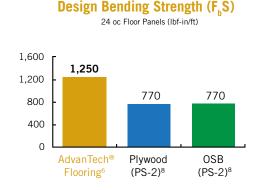
AdvanTech® flooring is the ONLY wood-structural panel with published design values above code minimum (PS-2)<sup>2</sup> requirements.

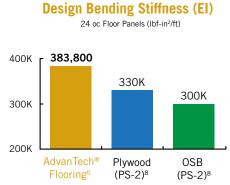
ESR-1785<sup>3</sup> documents design values for AdvanTech flooring above commodity-grade panels:

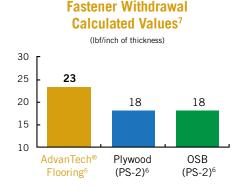
- Overall, 62% better design bending strength<sup>5</sup>
- 28% better design bending stiffness than commodity OSB<sup>5</sup>
- 16% better design bending stiffness than commodity plywood<sup>5</sup>
- Overall, 10% better design fastener holding power<sup>6</sup>

These values are available in ESR-1785 and can be viewed at www.icc-es.org.

### **Industry Leading Strength, Stiffness and Fastener Holding Power**







# STRENGTH AND STIFFNESS WHERE YOU NEED IT MOST.

### **Installs Fast and Stays Flat**

AdvanTech® flooring brings together a unique combination of bending strength, stiffness and fastener holding power so you can get the most from your flooring system.

The result is a solid-feeling floor that can enhance the quality of the entire home.



HOW EXCEPTIONAL STRENGTH IS ENGINEERED INTO EVERY BOARD

### **High Wood Density**

More wood is packed into each panel of AdvanTech engineered flooring. This produces an ultra-dense, ultra-strong panel that securely grips fasteners.

### Advanced Resins and Blending

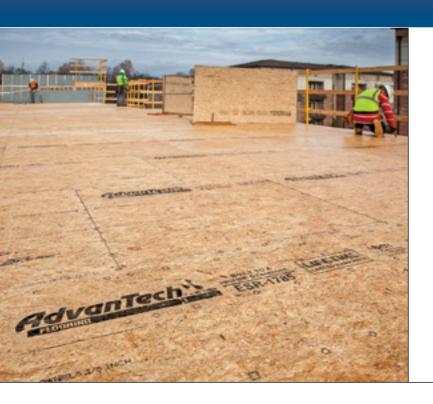
A sophisticated blending process coats every wood strand with advanced resins, ensuring a consistent and exceptionally strong bond throughout every square inch of the panel.

# Optimal Wood Strand Orientation Wood strand orientation is carefully engineered and tightly controlled to achieve maximum strength, stiffness and fastener holding power.

# 4 Tight Thickness Tolerance Precision sanding on both the top and bottom surfaces produces a consistent thickness so every panel lays flat and installs easily.



# SUPERIOR MOISTURE RESISTANCE DURING AND AFTER CONSTRUCTION.



### **Moisture-Related Peace of Mind**

The average jobsite receives rain three times during construction. And other factors such as high humidity, snow and ice can expose your projects to even more moisture.

Rest assured, AdvanTech® flooring's moisture resistance helps prevent headaches such as warping, swelling and delamination – leaving your finished floors smooth, flat and quiet.

# HOW ADVANTECH® FLOORING IS SPECIALLY ENGINEERED TO RESIST MOISTURE

**Highly Compressed Material** 

High panel density helps reduce the rate of water absorption into the panel, even under harsh weather conditions.

2

### **Moisture-Resistant Resins**

Advanced resins react chemically with the natural moisture in the wood, creating a highly moisture-resistant substance, similar to polyurethane.

3

### **Protection Throughout Entire Panel**

Every wood strand is coated with advanced moisture-resistant resins that provide superior protection even along freshly cut edges.

4

### **Edge Sealant**

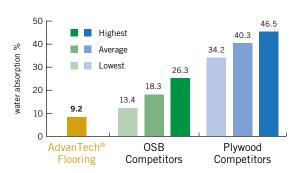
For added protection, every edge is coated with sealant to help prevent swelling during long-term storage or exposure to the elements.

### **DEFENDS AGAINST WATER<sup>11</sup>**

Protect against swelling, cupping and delamination with the advanced-resin technology of AdvanTech® flooring. Improve cycle time by reducing costly rework, construction delays and homeowner callbacks.

### Water Absorption<sup>10</sup>

24 oc Floor Panels





500 DAY
NO SANDING
GUARANTEE

AdvanTech® flooring is backed by a 500-day no-sanding guarantee.<sup>4</sup> With a guarantee like this, your moisture-related jobsite headaches are long gone.

### The Moisture-Resisting Advantage You Can See

### VS. OSB

Traditional Oriented Strand Board (OSB) has a reputation for frequent swelling and weakening after exposure to moisture. But AdvanTech® panels are made to withstand the elements – guaranteed.

### 24 Hour Edge Swell Demonstration

AdvanTech® Flooring

**OSB Flooring** 



### **VS. PLYWOOD**

When soaked in 1 inch of red water, the water line on the AdvanTech® panel sample barely moves, while the water line on the plywood panel sample moves up significantly. Water absorption can lead to swelling, cupping, delamination and other moisture-related damage.

### 3 Hour Wicking Demonstration

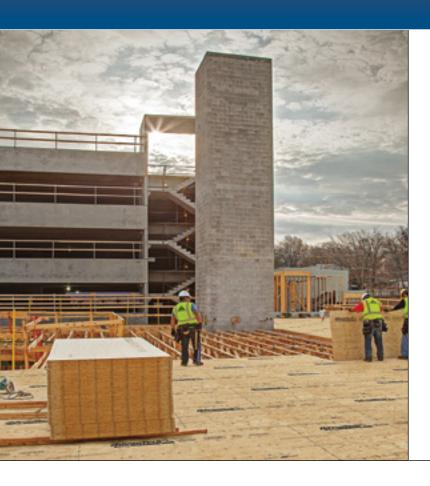
AdvanTech® Flooring

**Plywood Flooring** 





# ENGINEERED WITH PRECISION TO LAY DOWN FAST AND STAY DOWN FLAT.



### **Attention to Details**

AdvanTech® panels are precisely engineered to lay flat, dimensionally accurate and consistent from one panel to the next.

Plus, the smooth-fitting tongue-and-groove profile and patented fastening guide help jobs get done faster with fewer hassles, errors and callbacks.

# HOW ADVANTECH® FLOORING HELPS YOU GET THE JOB DONE EFFICIENTLY



### **Self-Spacing Tongue-and-Groove Profile**

The precisely engineered and durable profile helps ensure every panel fits together easily.

# Patented Fastening Guide Printed fastening guides on every panel help improve accuracy and speed during installation.

# Advanced quality controls and innovative manufacturing process help ensure every panel goes down with ease.

# ENGINEERED FOR LONG-LASTING QUALITY AND PERFORMANCE.

# A SOLID CHOICE FOR A VARIETY OF FLOORING APPLICATIONS.



## HARDWOODS OVER ADVANTECH® FLOORING

Fastener holding power and panel strength keep hardwood flooring flat and quiet.



## CARPET OVER ADVANTECH® FLOORING

Fully sanded surface and high wood density helps eliminate visible seams while keeping tack-strips firmly in place.



## TILE & STONE OVER ADVANTECH® FLOORING

Design stiffness and long-lasting durability help reduce the risk of cracked tile and stone.



## GYPSUM CONCRETE OVER ADVANTECH® FLOORING

An excellent substrate for heavy traffic areas, AdvanTech® panels provide a durable, strong base ideal for gyp-crete assemblies.

### **General Information**

Square Edge Panel Size: 4' x 8'

**Tongue & Groove Panel Size:** 4' x 8' (Actual face dimensions for tongue & groove panel are approximately 47-1/2" x 95-7/8")

Edge: Tongue & groove

Flooring Mill Specifications						
Mill	Panel Thickness (in)	Approx.* Weight Per Panel	Panels Per Unit			
Easton, ME	19/32 23/32	61 lbs. 72 lbs.	55 pcs. 45 pcs.			
Commerce, GA	19/32 23/32 7/8	68 lbs. 78 lbs. 94 lbs.	55 pcs. 45 pcs. 40 pcs.			
Crystal Hill, VA	19/32 23/32 7/8 1 1 1/8	68 lbs. 78 lbs. 94 lbs. 110 lbs. 124 lbs.	55 pcs. 45 pcs. 40 pcs. 35 pcs. 30 pcs.			
Broken Bow, OK	19/32 23/32 7/8 1 1 1/8	68 lbs. 85 lbs. 100 lbs. 108 lbs. 126 lbs.	55 pcs. 45 pcs. 40 pcs. 35 pcs. 30 pcs.			

<sup>\*</sup> Estimated panel weight. Actual weight may vary by mill.

## **COVER YOUR HOMES IN STRENGTH & PROTECTION.**



A DURABLE HOME STARTS WITH A STRONG, MOISTURE RESISTANT BASE.

### AdvanTech® roof and wall sheathing

Oriented strand board (OSB) and CDX plywood simply can't compare. What's inside AdvanTech® panels makes all the difference: advanced resin technology resists the damaging effects of weather during construction and over time. Structural 1 rated to provide excellent shear resistance and added strength to your walls and roofs. Protect your build with the the lasting durability of AdvanTech® sheathing.



## FLAT OUT BEST™ FROM TOP TO BOTTOM.



CDX PLYWOOD CAN'T STAND UP TO RAIN, SLEET AND SNOW THE WAY ADVANTECH® SHEATHING CAN.







### **Defends Against Moisture**

Designed for longer exposure during construction, backed by a 500-day weather resistance guarantee<sup>4</sup>. Unlike traditional OSB and plywood, AdvanTech® sheathing is engineered to resist swelling, cupping and delamination.

Backed By a Lifetime Limited Warranty<sup>4</sup>

AdvanTech® sheathing is backed by the best warranty in the business — a lifetime limited warranty — for added assurance both during and after construction.

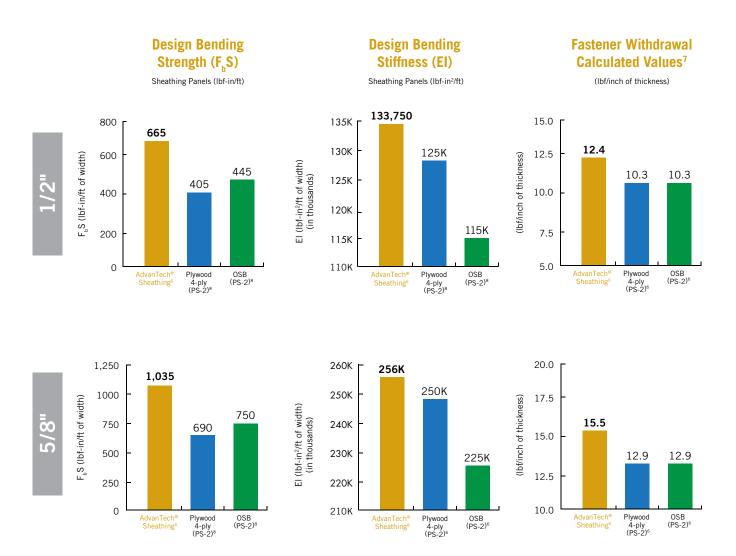
Higher Strength, Stiffness And Fastener Holding Power

ESR-1785 documents industry-leading strength and stiffness and better fastener holding power than competitive OSB and plywood<sup>3</sup> providing an exceptional nail base. Panels install flat and stay flat to help exterior materials look and perform their best.

### Structural 1 Rated

Provides up to 10% more allowable shear strength than rated sheathing with the same thickness and nailing pattern. Designed for greater resistance to wind and seismic loads in roof applications. Ideal for regions with heavy wind, rain, snow and ice.

## THE CLEAR LEADER IN STRENGTH AND STIFFNESS.



AdvanTech® roof and wall sheathing*									
Performance Category	Panel Size	PS-2 Span Rating	Code Evaluation Report	Edge Profile	Panel Grade	Approx. Weight Per Panel**	Panels Per Unit		
1/2	4' x 8'	32/16	ESR-1785	SE		54 lbs.	70 pcs.		
5/8	4' x 8'	40/20	ESR-1785	T&G, SE	Structural 1	67 lbs.	55 pcs.		
23/32	4' x 8'	48/24	-	SE		78 lbs.	45 pcs.		

<sup>\*</sup> Net face width is 47-1/2" on tongue and groove panels.

<sup>\*\*</sup> Estimated panel weight. Actual weight may vary by mill.

# A SOLID CHOICE FOR A VARIETY OF FLOOR, ROOF AND WALL APPLICATIONS



## SHEAR WALL DESIGNS WITH ADVANTECH® SHEATHING

Structural-1 rating deliver greater shear resistance to wind and seismic loads.



## TILE ROOFS ABOVE ADVANTECH® SHEATHING

Strength, durability and fastener holding power provide an exceptional base for heavy roofing materials.

Structural 1 Sheathing Mill Specifications						
Mill	Performance Category	Approx.* Weight Per Panel	Panels Per Unit			
Easton, ME	1/2 in. 5/8 in.	52 lbs. 64 lbs.	70 pcs. 55 pcs.			
Commerce, GA	1/2 in.	52 lbs.	70 pcs.			
Crystal Hill, VA	5/8 in.	67 lbs.	55 pcs.			
Broken Bow, OK	1/2 in. 5/8 in.	58 lbs. 70 lbs.	70 pcs. 55 pcs.			

<sup>\*</sup> Estimated panel weight. Actual weight may vary by mill. 5/8" sheathing is available in tongue & groove and square edge.



### SHINGLES ABOVE ADVANTECH® SHEATHING

Strong, moisture resistant panels install flat and stay flat to help eliminate visible seams so exterior materials look their best.



### DOUBLE-LAYER FLOATING SUBFLOORS USING ADVANTECH® PANELS

Dimensional stability and consistent quality provides a flat, stable base to keep hardwoods firmly in place.



### FLAT ROOF APPLICATION USING ADVANTECH® PANELS

Stiffness and moisture resistance against edge swell help reduce low spots that pond water.

# VOTED #1 IN QUALITY SINCE 2002<sup>1</sup>

Here are a few reasons why...

### Performance you can count on

"I've never had to tear out a piece of AdvanTech in the 15 years we've been using it. It's a product that performs and supports its value."

- Easley, SC



# ASWENTERS OF THE PARTY OF THE P

### A lifetime of quiet, stiff floors<sup>4</sup>

"I build with AdvanTech because of the sound. Most of our homes are two-story and there's kids, you don't want to hear them upstairs or have squeaks."

- Denton, TX



References: 1. Builder Magazine's 2002-2015 Brand Use Studies; OSB category. 2. AdvanTech flooring is the only wood structural panel substantiated by third party evaluation services for published design values for strength, stiffness and fastener holding power above PS-2 minimums. Please see ESR-1785 for AdvanTech flooring published design values. 3. ESR-1785 is an Evaluation Services Report (ESR) issued by the International Code Council Evaluation Service. Evaluation reports from ICC Evaluation Service are frequently used by code officials to verify that new and innovative building products comply with code requirements. 4. Limitations and restrictions apply. Visit AdvanTechPerforms.com for details. 5. ICC ES Evaluation Service Report ESR-1785. 2012 APA Panel Design Specification, Form No. D510C. 6. Based on the design values published in ICC-ES Evaluation Service Report, ESR-1785 and the 2012 APA Panel Design Specification, Form No. D510C. 7. Allowable nail withdrawal values were calculated in accordance with the 2012 National Design Specification for Wood





500 day no-sanding guarantee

"The first job I used it on had three inches of ice, when we chipped the ice off we never had to sand a seam..."

- Rusty MacLachlan MacLachlan Construction, Springfield, MO



### Moisture-resistance that keeps your jobs on track

"This past winter we had AdvanTech exposed on three houses, we had to shovel the snow out at least 5 or 6 times and all of my subflooring held up extremely well. That's why I love the product, I always have!"

- Chris Calderone Continental Pinewood Development, Bridgehampton, NY

Construction using a 0.131 inch diameter nail for flooring and 0.148 inch diameter nail for roof and wall sheathing calculations. American Wood Council ASD/LRFD 8. 2012 APA Panel Design Specification, Form No. D510C. 9. See AdvanTech Flooring Product Data Sheet on AdvanTechPerforms.com for available thicknesses stamped as Structural 1. 10. All testing was conducted by an independent IAS accredited testing facility in September 2008. This small sample testing was done in accordance with the applicable ASTM standards and test methods. OSB values are based on lowest, average and highest water absorption levels of three competitors. Competitor testing samples correspond to single manufacturing locations from one production date. 11. During the construction process as related to dimensional stability (thickness swell, linear expansion, edge swell, water absorption or surface quality) of the product.







# KEEP THE ELEMENTS OUT AND SEAL COMFORT AND SAVINGS IN.





**Discover ZIP System® sheathing and tape.** It's a one-of-a-kind structural roof and wall system with a built-in energy-efficient barrier that keeps moisture out and reduces air leakage while still allowing panels to properly dry. Plus, it goes up in just two easy steps:

- 1. Install the panels
- 2. Tape the seams

Fewer steps result in **40% faster installation** when compared to traditional housewrap and tape.



# SIMPLY INSTALL ZIP SYSTEM® PANELS AND TAPE THE SEAMS FOR MOISTURE AND AIR PROTECTION.

- High quality structural sheathing panel made of engineered wood delivers strength and durability.
- Built-in vapor permeable, water-resistive barrier enhances drainage and eliminates the hassles of housewrap and felt.
- A continuous, rigid air barrier decreases unwanted air leakage for greater energy efficiency.
- ZIP System™ flashing tape with a specially engineered, high performance acrylic adhesive bonds with ZIP System® panels for a permanent protective seal.

# ZIP SYSTEM® SHEATHING AND TAPE IS THE FASTEST WAY TO ACHIEVE:





ZIP System® sheathing and tape is easier to install than traditional housewrap and felt, helping save money on labor costs and improve project cycle times.



By achieving optimal levels of permeability and drainage, ZIP System sheathing and tape protects against water intrusion, while still allowing the panels to properly dry.



### **Energy Efficient Air Barrier**

ZIP System sheathing and tape forms a tight barrier against unwanted air leakage, for a durable building envelope that promotes energy efficiency and increases interior comfort.



### **Enhanced Structural Durability**

ZIP System® panels are available with a Structural 1 rating, so you can get the ultimate shear strength to meet seismic and high-wind zone requirements. See website for details.



### PLUS, AN OPTION TO PROVIDE:

### **Enhanced Thermal Resistance**

The all-in-one ZIP System® R-sheathing panel with a built-in insulated layer enhances the building envelope and increases its total R-Value.



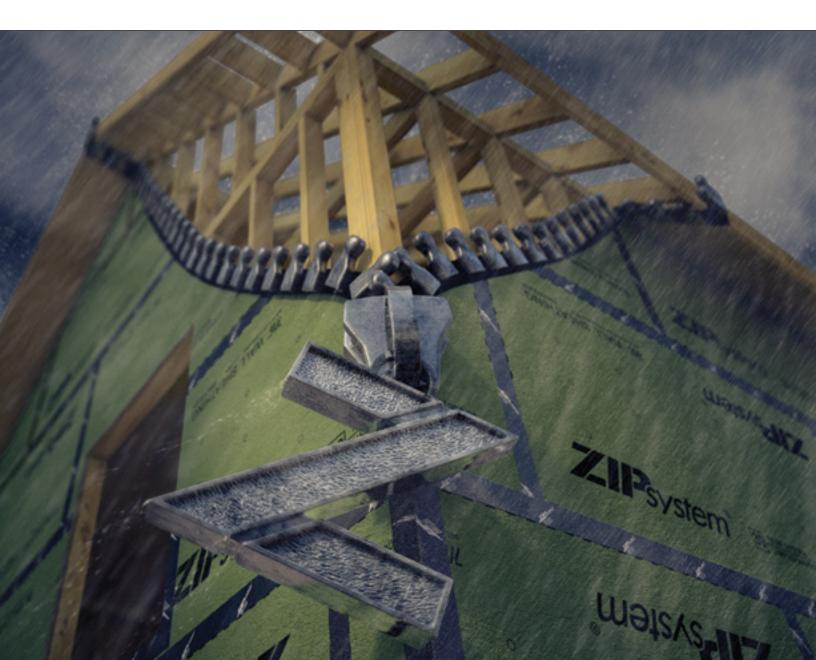




# CREATE A TOUGHER LAYER OF SUPPORT FOR YOUR EXTERIOR.

### Three thicknesses. Two colors. It's one panel that can do it all.

ZIP System® sheathing and tape is designed to streamline work on the jobsite. It's a one-of-a-kind structural roof and wall system with a built-in, energy-efficient barrier that keeps moisture out and reduces air leakage, while still allowing panels to properly dry. Three panel thicknesses let you choose the strength and protection you need for your build. Each one is engineered for use on both roof and wall applications – one panel is all you need.



### PANELS ARE CONVENIENTLY COLOR-CODED

Green panels signify a thickness of 7/16" while red panels signify a thickness of 1/2" and 5/8". All three thicknesses can be used in both roof and wall applications, making it the perfect choice for any job.

7/16" Combo Panel



1/2" and 5/8" Combo Panels

### **SAMPLE COMBINATIONS:**

Refer to detailed installation instructions at ZIPSystem.com



	7/16" ZIP System® roof and wall sheathing							
Performance Category	Panel Size	Panel Count	PS2 Span Rating	Code Evaluation Report	Vapor Transmission of WRB Layer	Air Barrier**		
7/16	4' x 8'	80	24/16***			ASTM		
7/16 Extended Lengths*	4' x 9' 4' x 10' 4' x 9' 1-1/8" 4' x 10' 1-1/8"	70 60 70 60	24/16 Structural 1	ESR 1473 ESR 1474	12-16 perm ASTM E 96-00 Procedure B	E 2178 <0.02L(s•m²) @ 75 Pa ASTM E 2357 <0.2 L(s•m²) @ 75 Pa		

1/2" and 5/8" ZIP System® roof and wall sheathing							
Performance Category	Panel Size	Panel Count	PS2 Span Rating	Code Evaluation Report	Vapor Transmission of WRB Layer	Air Barrier**	
1/2	4' x 8'	70	32/16 Structural 1	ESR 1473 ESR 1474	12-16 perm ASTM	ASTM E 2178 <0.02L(s∙m²) @ 75 Pa ASTM	
5/8	4' x 8'	55	40/20 Structural 1		E 96-00 Procedure B	E 2357 <0.2 L(s•m²) @ 75 Pa	

<sup>\*</sup> Contact your Huber Sales Professional for availability in your area.

<sup>\*\*</sup> When used with ZIP System™ flashing tape.

<sup>\*\*\*</sup> Some Structural 1 rated panels available in certain geographical regions.









### ZIP System® sheathing is a code-recognized water resistive barrier that achieves greater than 90% drainage efficiency when tested in accordance with ASTM E-2273.

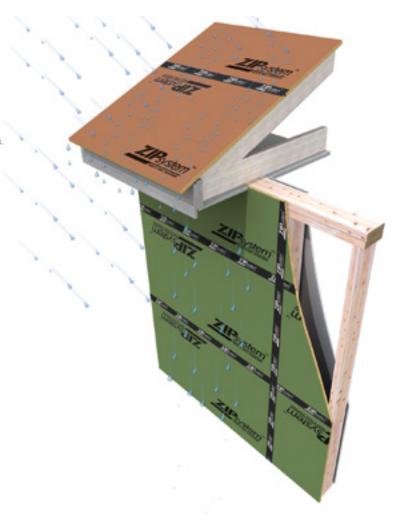
ZIP System® sheathing installs without the hassles of housewrap and felt. Since the weather barrier is integrated directly onto the sheathing panels, it doesn't tear or blow off – even when exposed to harsh wind-driven rain tests. This built-in barrier also helps eliminate the risk of water becoming trapped between building wrap and sheathing. Plus, the system seals tightly to provide a durable, rigid air barrier to reduce unwanted air leakage and increase energy efficiency. That's performance we back with a 30-year system limited warranty and products that can withstand up to 180 days of exposure.\*



### **Engineered For Optimal Breathability**

The ZIP System® sheathing overlay protects against water intrusion while providing an optimal vapor permeance level (12-16 perms) to allow panels to properly dry out.

\* Limitations and restrictions apply. Visit ZIPSystem.com for detail













Air leakage is one of the most significant causes of energy loss, because it works against expensive heating and cooling equipment by disrupting inside temperature. By forming a continuous, rigid air barrier, ZIP System® sheathing and tape reduce air leakage, while outperforming traditional sealing methods involving housewrap.

### Why ZIP System® sheathing

By simply taping the panel seams with ZIP System<sup>™</sup> flashing tape, the system effectively seals the building envelope, decreasing unwanted air leakage into and out of the home. ZIP System<sup>®</sup> panels are structural PS-2 rated panels with permanently integrated protective barriers. They're engineered to withstand the demands of the jobsite and provide long-term performance within the building structure. That's superior performance we ensure through extreme tests.



### A Tighter Seal That Protects R-Value

Air leakage lessens the ability of insulation to resist heat flow, reducing its effective thermal resistance (R-Value). By eliminating gaps in the building envelope for a tighter seal, ZIP System® sheathing better protects the wall system and prevents air leakage from degrading R-Value.



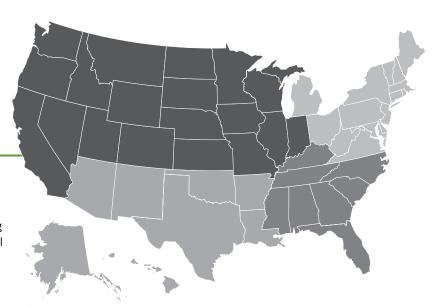
### **ENERGY SAVINGS ARE BUILT RIGHT IN**

### WITH ZIP SYSTEM® SHEATHING AND TAPE.



Less energy consumption and lower utility bills are key factors in today's housing market. ZIP System® sheathing and tape can play a key role in achieving both. Visit our online map to see estimated annual energy savings in a city near you.

ZIPSystem.com/energyefficiency



### SEE WHAT YOU COULD SAVE

City	Average Annual Savings on Heating and Cooling Costs	Annual ZIP System® Wall Savings (\$ Savings)
New Orleans	6%	\$74
Dallas	7%	\$125
Little Rock	7%	\$136
Oklahoma City	9%	\$183

City	Average Annual Savings on Heating and Cooling Costs	Annual ZIP System® Wall Savings (\$ Savings)
Washington D.C.	9%	\$187
Philadelphia	11%	\$225
Boston	13%	\$353
Detroit	13%	\$242
Syracuse	12%	\$318
Portland	14%	\$380

Calculations are estimated, based on a 2 story, 3,200 sq./ft home on slab foundation with gas heat and central air. Based on average 2009 utility rates by state.

City	Average Annual Savings on Heating and Cooling Costs	Annual ZIP System® Wall Savings (\$ Savings)
Boise	12%	\$189
Chicago	12%	\$194
Denver	11%	\$156
Fargo	16%	\$306
Madison	13%	\$275
Milwaukee	14%	\$282
Minneapolis	14%	\$252
Omaha	12%	\$177
Portland	10%	\$166
Salt Lake Clty	11%	\$155
Seattle	11%	\$175
St. Louis	11%	\$191
Wichita	10%	\$177

City	Average Annual Savings on Heating and Cooling Costs	Annual ZIP System <sup>®</sup> Wall Savings (\$ Savings)
Orlando	4%	\$58
Atlanta	8%	\$165
Charlotte	8%	\$151
Nashville	9%	\$130







When it comes to building a quality roof that can stand up to the elements, nothing beats the tough, efficient protection of ZIP System® sheathing and tape. As an all-in-one structural panel system with a built-in, water-resistive barrier, ZIP System sheathing and tape creates an airtight seal and eliminates the need for felt, synthetic underlayment or peel-and-stick options, saving significant labor time and costs. The simple panel-and-tape system installs quickly creating a rough dry-in that helps keep construction progress on track.



### Speed and Ease of Installation

ZIP System sheathing and tape installs faster than traditional roof underlayment options. Simply install the panels, tape the seams and roof installation is ready to begin.

### **Built-In Water Resistant Barrier**

Engineered to prevent moisture while providing optimal permeability that allows water vapor to pass through and promote drying.

### Quicker Rough Dry-In

Saves valuable construction time, eliminating the need to install felt or an underlayment to produce rough dry-in status.

### **Enhanced Structural Durability**

Enjoy the peace of mind of a secure roof that meets seismic and high-wind zone code requirements. The 7/16" panel is Structural 1 rated.

### 180-Day Exposure Allowance\*

ZIP System sheathing and tape protects against water intrusion for a rough dry-in unmatched by any other roof sheathing.

### **Eliminates Rework**

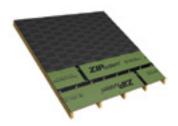
With an integrated roof underlayment, ZIP System sheathing and tape provides a tight, durable system, eliminating costly rework and repairs typical to traditional felt systems.

<sup>\*</sup> Limitations and restrictions apply. Visit ZIPSystem.com for details.



### JUST INSTALL THE PANELS AND TAPE THE SEAMS FOR ROOF SHEATHING THAT INSTALLS FAST AND TIGHT.

### ZIP IT TIGHT™ WITH A VARIETY OF ROOFING MATERIALS.







Metal Shingles and Panels



Clay and Concrete Tile

ZIP System® sheathing and tape provides an excellent roof underlayment to receive many finished roof coverings including metal, tile and asphalt, fiberglass or cedar shingles. The panels lay flat and stay flat, ensuring a finished roof that looks as good as it performs.

	7/16" ZIP System® roof and wall sheathing						
Performance Category	Panel Size	Panel Count	PS2 Span Rating	Code Evaluation Report	Vapor Transmission of WRB Layer	Air Barrier**	
7/16	4' x 8'	80	24/16***			ASTM	
7/16 Extended Lengths*	4' x 9' 4' x 10' 4' x 9' 1-1/8" 4' x 10' 1-1/8"	70 60 70 60	24/16 Structural 1	ESR 1473 ESR 1474	12-16 perm ASTM E 96-00 Procedure B	E 2178 < 0.02L(s•m²) @ 75 Pa ASTM E 2357 < 0.2 L(s•m²) @ 75 Pa	

	1/2" and 5/8" ZIP System® roof and wall sheathing							
Performance Category	Panel Size	Panel Count	PS2 Span Rating	Code Evaluation Report	Vapor Transmission of WRB Layer	Air Barrier**		
1/2	4' x 8'	70	32/16 Structural 1	ESR 1473	12-16 perm ASTM	ASTM E 2178 <0.02L(s•m²) @ 75 Pa		
5/8	4' x 8'	55	40/20 Structural 1	ESR 1474	E 96-00 Procedure B	ASTM E 2357 <0.2 L(s•m²) @ 75 Pa		

<sup>\*</sup> Contact your Huber Sales Professional for availability in your area.

Although all projects are unique, experience has shown that 1 roll of 3 3/4" ZIP System<sup>®</sup> flashing tape is needed for approximately 7 sheets of 4' x 8' ZIP System<sup>®</sup> sheathing. This should only be considered a general "rule of thumb" when ordering materials with the understanding that some jobs may require more or less depending on the specific project.

<sup>\*\*</sup> When used with ZIP System™ flashing tape.

<sup>\*\*\*</sup> Some Structural 1 rated panels available in certain geographical regions.









# ZIP SYSTEM® R-SHEATHING: INSULATES AND PROTECTS.

For installation convenience and exceptional, long-term performance, all-in-one ZIP System® R-sheathing panels and tape provide a new approach to sealing and insulating the building envelope. One panel delivers thermal, air and moisture resistance, while providing excellent strength and durability. This single-piece design lets you avoid the hassles of multi-level systems. Just install the panels and tape the seams for a wall system that provides structure, moisture protection, air tightness and insulation in a single installation.



### 5-in-1 System with Layers of Innovation

1

### **Continuous Foam Insulation Provides Higher R-Value**

- Increases thermal performance while minimizing thermal bridging
- Designed to meet new energy codes

2

### **Engineered Wood Provides Structure and Durability** 7,8,9

- Nailable wood base for trim and accessories
- Provides security against easy home intrusion

Built-In Water Resistive Barrier Eliminates Housewrap and Felt

- Eliminates costly rework
- Instant rough dry-in with 180 day exposure guarantee\*
- Superior drainage efficiency that channels moisture downward off the panel face
- Permeable overlay promotes panel drying

4

### **Continuous Air Barrier Contributes to Greater Energy Efficiency**

- Decreases unwanted air leakage into and out of a building
- Helps protect the R-Value of insulation, reducing heating and cooling costs

ZIP System™ Flashing Tape Securely Seals Panel Seams

- Acrylic formulation provides superior adhesion
  - Rigorously tested for long-lasting performance
  - Easily applied with ZIP System® tape gun and accessories

<sup>\*</sup> Limitations and restrictions apply. Visit ZIPSystem.com for details.



	1", 1 1/2", and 2 1/2" ZIP System <sup>®</sup> R-sheathing								
Panel Type	Total Thickness	Panel Size	Panel Count	R-Value	Code Evaluation Report	Air Barrier*			
R-3	1"	4' x 8'	32	3.6		ASTM E 2178 ASTM E 2357			
R-6	1-1/2"	4' x 8'	31	6.6	ESR 3373	<0.02L(s•m²) <0.2 L(s•m²)			
R-12 <sup>7</sup>	2-1/2"	4' x 8'	18	12.6		@ 75 Pa			

ZIP System® Properties	R-3	R-6	R-12
TECO Rated OSB	7/16"	7/16"	7/16"
Foam	1/2"	1"	2"
R-Value	3.6	6.6	12.6
Pieces Per Package (4' x 8' sheet)	32	31	18
Square Feet Per Package	1024	992	576

Foam Performance		
Property	Test Method	Typical Results
Dimensional Stability	ASTM D 2126	< 2%
Compressive Strength	ASTM D 1621	20 psi
Water Absorption	ASTM C 209 ASTM D 2842	< 1% < 3.5%
Water Vapor Transmission	ASTM E 96	< 1.0 perm
Density	ASTM D 1622	Nominal 2.0 pcf
Flame Spread	ASTM E 84	40-60
Smoke Developed	ASTM E 84	50-170
Tensile Strength	ASTM D 1623	> 730 psf
Service Temperature		-40° – 200° F

ZIP System® Performance						
Water Resistance of Coatings	ASTM D 2247-97 (for 14 days)	Passed				
Drainage Efficiency	ASTM E 2273	> 90%				
Water Vapor Transmission	ASTM E 96B	12-16 perms (overlay)				
Water Penetration	ASTM E 331-00	Passed				
Air Barrier Assembly	ASTM E 2357-05 at 75Pa	0.037 L/(s•m²)				
Wind Driven Rain	TAS-100	Passed 100 mph				
Accelerated Weathering	ASTM G 154	Passed				

Long term thermal resistance values of the foam were determined in accordance with ASTM C 1289-02. The R-Value of 0.55 for 7/16" OSB was obtained from ASHRAE Handbook, Fundamentals.

ESR-3373

## Allowable Shear Capacity for ZIP System® R-sheathing with Framing of Douglas Fir-Larch¹ For Wind or Seismic Loading Under the 2012 and 2009 IBC<sup>8,9</sup>

	Fran	Framing Fasteners				
ZIP System® R-sheathing Type³	Nominal Stud Size (min.)	Maximum Stud Spacing (in.)	Fastener Specifications²	Edge/Field Spacing (in.)	Minimum Penetration into Framing (in.)	Allowable Shear Capacity <sup>4,5</sup> (plf)
R-3	2-by-4	24	0.131" shank nails	4/12	1.5	245
R-6	2-by-4	24	0.131" shank nails	4/12	1.5	NA <sup>6</sup>
R-6	2-by-4	24	0.131" shank nails	3/6	1.5	215
R-3	2-by-4	16	16ga staples, 7/16" crown, 2" length	3/6	1.0	210
R-6	2-by-4	24	15ga staples, 7/16" crown, 2.5" length	3/6	1.0	NA <sup>6</sup>

For SI: Inch = 25.4mm; 1 pound per foot (ppf) = 14.59 N/m.

- \* When used with ZIP System<sup>™</sup> flashing tape.
- 1 For framing of other species, the shear value above must be multiplied by the Specific Gravity Adjustment Factor = [1 (0.50 SG)], where SG=Specific Gravity of the framing lumber in accordance with the AF&PA NDS. This adjustment factor must not be greater than 1.
- 2 Fasteners must be common nails or equivalent, or staples, of a type generally used to attach wood sheathing.
- 3 Type R-6 R-sheathing panels have a foam plastic insulation thickness of 1". Type R-3 R-sheathing panels have a foam plastic insulation thickness of .5". Type R-12 R-sheathing panels have a foam plastic insulation thickness of 2".
- 4 The shearwalls must have a maximum height-to-width aspect ratio of 2:1.
- 5 The allowable shear capacity may be increased by 40% for wind in Allowable Stress Design in accordance with Section 2306.3 of the 2012 and 2009 IBC.
- 6 This panel and fastening configuration is applicable to the prescriptive bracing requirements under the 2009 IRC.
- 7 Type R-12 R-sheathing panels are non-structural sheathing panels.
- 8 Not approved for use as prescriptive wall bracing where the design wind speed is greater than 110mph or in Seismic Design Categories D or E.
- 9 Not approved to resist shear in wood framed shear walls located in Seismic Design Categories D or E.







# ZIP SYSTEM® LONG LENGTH SHEATHING: TALLER, TOUGHER AND FEWER SEAMS.

Get all the benefits of long length wall sheathing along with the superior moisture protection and air barrier that only ZIP System® sheathing provides. Only ZIP System® long length sheathing and wind zone panels combine the benefits of a longer panel with the ability to completely eliminate housewrap.





ZIP System® long length sheathing is ideal for single-and multi-story projects.





ZIP System® wind zone panels are 1-1/8" taller, accommodating roof uplift in single-story projects without requiring additional paneling above.

Compare For Yourself	Other long length panels	ZIP System <sup>®</sup> long length panels	ZIP System <sup>®</sup> wind zone panels
More efficient panel installation	Х	X	х
Can eliminate blocking at horizontal panel seams	Х	X	X
Fewer horizontal seams	X	X	X
Less panel cutting and waste	Х	X	X
Can be designed to resist combined uplift and shear	Х	X	X
Eliminate need for housewrap with built-in vapor permeable water-resistive barrier		Х	Х
Continuous rigid air barrier decreases unwanted air leakage for greater energy efficiency		X	X
Backed by <b>30-year system warranty</b> "		X	X
Faster installation, built-in weather-resistant barrier eliminates the need for housewrap		X	X
Long length panel, water-resistive barrier, air barrier and seam sealer are an engineered system from the same manufacturer		X	X
Meets Structural 1 rating for 7/16," 1/2" and 5/8" sizes"		X	X

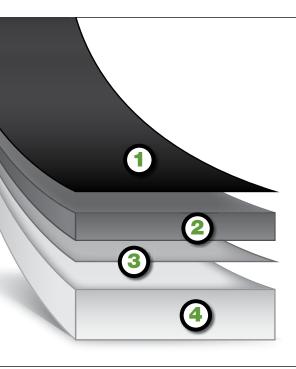
- See the American Wood Council, Special Design Provisions for Wind and Seismic, AWC SDPWS-08
- \*\* Limitations and restrictions apply. Visit ZIPSystem.com for details.
- \*\*\* 1/2" and 5/8" panels available by special order.

	ZIP System® long length sheathing and wind zone panels									
Product	Performance Category	Panel Size	Panel Count	PS-2 Span Rating	Code Evaluation Report	Vapor Transmission of WRB Layer	Air Barrier <sup>†</sup>			
Long Length	7/16	4' x 9' 4' x 10'	70 60	04/10	ESR 1473	12-16 perm	ASTM E 2178-03 <0.02L(s•m²) @ 75 Pa			
Wind Zone	7/16	4' x 9' 1-1/8" 4' x 10' 1-1/8"	70 60	24/16 Structural 1	ESR 1474	ASTM E 96-00 Procedure B	ASTM E 2357-05 <0.2 L(s•m²) @ 75 Pa			



## ZIP SYSTEM™ FLASHING TAPE: OUTSTANDING ADHESION, RESILIENCE AND EFFICIENCY.

ZIP System<sup>™</sup> flashing tape is made of an advanced acrylic adhesive, proven to deliver a superior airtight and watertight seal that withstands many years of harsh weather. It installs quickly by hand and roller or by using the ZIP System<sup>®</sup> tape gun, and is ideal for both seam sealing and flashing applications.



# EVERY LAYER WORKS TOGETHER FOR TOTAL PERFORMANCE AND PROTECTION.

Slip Resistant

Top layer provides slip-resistant tack during installation for safety

### **Weather and UV Protection**

- Thick inner layer offers dimensional stability
  - Carbon black for "sunscreen" that protects other layers
    - Antioxidants for durability
  - Warranted for up to 180 days of extreme weather and UV exposure\*
- 3 Long-Term Durability
  Bonding layer specially formulated to bond with the adhesive for durability

### All Weather Adhesion

- Best performing tape in all weather conditions

- Advanced acrylic adhesive delivers a lifetime of superior adhesion
- Resists heat and UV light and creates permanent bond strength

### ZIP SYSTEM™ FLASHING TAPES OFFER SUPERIOR ADHESION AT BROAD TEMPERATURE RANGE.





Works on a VARIETY OF SURFACES



REPOSITIONABLE material



Cold temperature application AS LOW AS 20° F



SUPERIOR ACRYLIC ADHESION better than butyl/asphalt



EXPOSURE guarantee\*

ZIP System <sup>™</sup> flashing tape									
Nominal Width	Roll Length	Tape Thickness	Adhesive Technology	Code Evaluation Report	Installation Temperature Range	Allowable UV Exposure	Tensile Strength	Elongation	
3-3/4"	90'	40!!-	A 1' -	ESR 2227	200 10005	400 Davist	000	4000/ 0000/	
6"	75'	12 mils	Acrylic	AAMA 711-07: Pass	20°-120°F	180 Days*	938 psi	400%-800%	

<sup>\*</sup> Limitations and restrictions apply. Visit ZIPSystem.com for details.







## **ZIP SYSTEM™ STRETCH TAPE:** STRETCHES, CURVES, STICKS AND SEALS.

ZIP System™ stretch tape easily stretches to fit sills, curves and corners with a single piece without having to piece tape segments together. Made of a high-performance composite acrylic, the tape conforms to challenging applications and locks out moisture even over mismatched surfaces.



### SPEED THROUGH APPLICATIONS WITH TAPE THAT STRETCHES.

ZIP System<sup>™</sup> stretch tape is fast and effective. Nothing seals around curves and corners better. So you can zip through tricky installations with ease.

### Stretches to fit

Easily stretches to conform to corners and curves

### **Excellent moisture barrier**

Provides a strong tight bond for an effective ZIP IT TIGHT™ seal, even around fasteners

### Labor saving

Eliminates the need to piece tape segments together in challenging applications

### Repositionable

Can be pulled up and reapplied for hassle-free installation

Ideal for your toughest applications including curved windows and wall penetrations

### ZIP SYSTEM™ STRETCH TAPE WORKS ON A VARIETY OF APPLICATIONS.



Stretches in Any Direction





Wall Penetration



ZIP System <sup>™</sup> stretch tape							
Nominal Width	Roll Length	Tape Thickness	Installation Temperature Range	Allowable Weather Exposure	Tensile Strength	Elongation	
6"	75'	42 mils	20°-120°F	180 Days*	225 psi	800%-1200%	
10"	, 5	-12 111110	20 120 1	100 Days	220 001	00070 120070	

<sup>\*</sup> Limitations and restrictions apply. Visit ZIPSystem.com for details.









## ZIP SYSTEM™ LIQUID FLASH: VERSATILITY FOR SEALING EVERY ROUGH OPENING.

ZIP System™ liquid flash is a liquid-applied flashing membrane made of STPE (silyl-terminatedpolyether) technology. This high-performance formulation combines the durability of silicones with the toughness of urethanes.



### **ENGINEERED FOR SEALING IRREGULAR, CURVED OR** HARD TO FLASH AREAS.

**Optimal Viscosity** Flows easily to seal irregular shapes and surfaces

### **Quick Cure Time**

- Immediately weather resistant and tack free in as little as 20-40 minutes depending on conditions. Target thickness achieved when substrate is no longer visible
- Weather and UV Resistant Warranted for up to 180 days of extreme weather and UV exposure\*
- **Proper Adhesion to a Wide Range of Surfaces** Bonds to wood, concrete, masonry, architectural metals, glass, PVC, FRP, EPDM and most other building materials

### FORMS AN INSTANT SEAL, UNDER THE MOST DEMANDING CONDITIONS.



Flows easily to seal difficult areas, such as rough openings and wall penetrations.



Bonds and cures in wet weather and on damp substrates.



Becomes waterproof immediately after installation, providing fast rough dry-in.

		Z	IP System <sup>1</sup>	<sup>™</sup> liquid flash				
Packaging Options	Typical Coverage: Window Sill Flashing (2x4 Framing)	Cured Thickness	Compound Technology	Water and Air Penetration	Installation Temperature Range	Allowable UV Exposure	Tack Free Time	Cure Time
20 oz. Re-fill tube	20 lf (approx. six 3'0" window sills)	12 mils		ASTM E331: Pass	35°-110°F	180 Days*	20-40	12 mils =
29 oz. Cartridge	29 If (approx. nine 3'0" window sills)		Polymer	ASTM E2357: Pass	00 1101	100 Buyo	Minutes**	24 Hours**

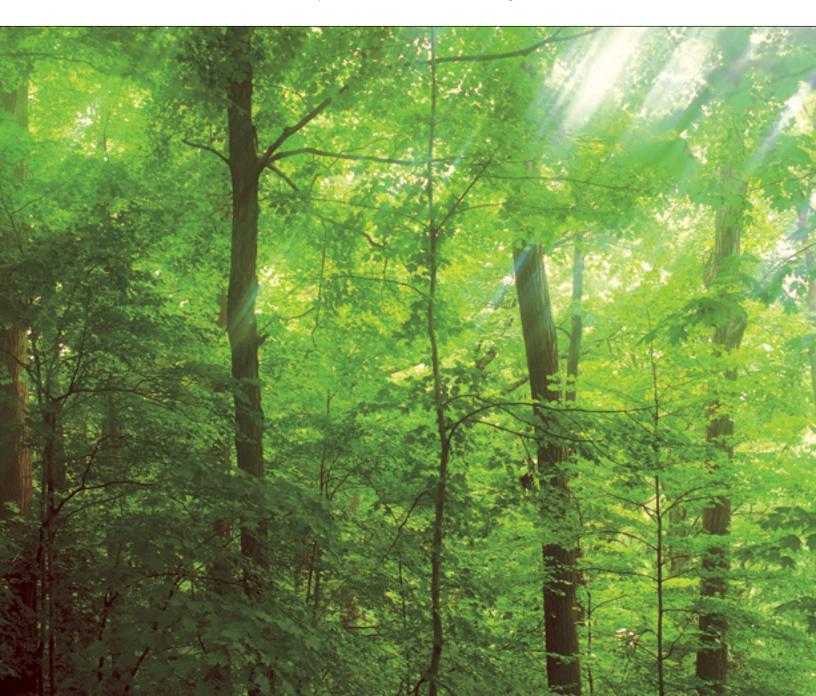
<sup>\*</sup> Limitations and restrictions apply. Visit ZIPSystem.com for details.

<sup>\*\*</sup> At 70°F and 50% relative humidity. Low temperatures and low relative humidity slow dry time; high temperatures and high relative humidity accelerate dry time.

## **ENVIRONMENTAL PRODUCT DECLARATION.**

ZIP System® sheathing is the only combination structural panel of its kind to achieve a cradle-to-grave environmental product declaration.

AdvanTech® sheathing is the first premium wood structural panel with code recognized design values that exceed traditional PS-2 panels to release a cradle-to-grave EPD.







- AdvanTech® flooring and ZIP System® sheathing and tape manufacturing processes are greater than 99% landfill free. Just 2% of waste is produced, with most of it being recycled.
- Wood, which is 100% biodegradable, is the main component of Huber
   Engineered Woods products, comprising more than 90% of each product.
- Huber Engineered Woods utilizes manufacturing plants located in Commerce,
   GA; Broken Bow, OK; Crystal Hill, VA; and Easton, ME, reducing the distance
   materials travel to and from the plants.
- ZIP System sheathing and tape and AdvanTech flooring require no energy or water during the use stage, and require no maintenance, repair, replacement, or refurbishment during their service lives.
- ZIP System roof and wall sheathing provides air sealing potential for buildings.
   ZIP System® R-sheathing provides air sealing and thermal resistance.
- All ZIP System<sup>®</sup> sheathing products include built-in water resistive barriers to prevent moisture leakage in homes.
- ZIP System R-6 R-sheathing requires just 10-16 months of service to make up for its global warming impacts, thanks to its built-in continuous foam insulation.
- In a 30-day exposure test, AdvanTech flooring had less water absorption or less moisture content on average than the competitive OSB and plywood panels tested. AdvanTech flooring is the only 23/32" OSB product tested that did not drop below the PS-2 industry standard for subfloor stiffness. This stiffness retention could be an indicator of a longer product service life.

To get the whole Huber Engineered Woods sustainability story visit www.HuberWood.com/about-huber/environmental/sustainable-practices



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