ACRE™ BY MODERN-MILL

A WORLD BEYOND WOOD

SIDING TRIM BOARDS DECKING SHEETS MILLWORK

PRODUCT GUIDE





SHIPLAP SIDING Kirkland, WA PRODUCTS USED:

ACRE Shiplap Siding

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Build Better with ACRE

Modern Mill is leading the way toward a more sustainable future, one tree-free board at a time. Our award-winning building material, ACRE, is the ideal alternative to wood for countless exterior and interior applications. It's beautiful, easy to work with, easy to care for and better for the environment. ACRE is strong, water-resistant and guaranteed not to rot or splinter. ACRE is a sustainable choice that doesn't sacrifice performance.

RESPONSIBLE, SUSTAINABLE AND LOCAL

We use discarded rice hulls that would otherwise go to landfills, and we embrace a zero-waste manufacturing process. ACRE products are free of phenolic plasticizers such as bisphenol A, formaldehyde, and adhesives. ACRE is 100% recyclable and can be used to form new products at our manufacturing facility in Mississippi, USA.



CEILING PANELS Miami, FL

PRODUCTS USED: ACRE Trim Boards

Features and Benefits of ACRE

WORKS LIKE WOOD - BUT BETTER!

Paintable and stainable. No primer necessary

Easy to rout, cut and sand in the field with regular woodworking tools

Easy on tools. Minimal melting or static-charged dust

No harmful dust or residue

Pre-drilling not required. Screws and nails will not mushroom

Uniform texture throughout and finish-ready, no need to seal or treat ends or cut edges

NATURAL BEAUTY

Genuine warm look and feel of wood

Natural-looking grain

Endless finish options with water-based paints or stains. See Coatings Guide for important information

Thermoform for folded corners, curves and creative shapes

Digitally print directly on ACRE's surface



UNMATCHED DURABILITY

100% resistant to water, weather, rot and pests - even termites!

Guaranteed not to splinter or rot

Smooth screw application close to edges, and into sides without splitting

Suitable for ground and water contact

Sturdy, resists breakage and job site damage

Debris from cutting will fall and brush off surfaces and clothing (less static cling than traditional PVC)

Easy on tools when routing, cutting and screwing

Strong screw and nail retention. Superior bond with a selection of glues and construction adhesives

No special maintenance or cleaning methods needed

Virtually no moisture absorption so paint lasts longer than on wood

Less expansion and contraction than competitive PVC products

Lightweight, yet strong and straight

Be sure to consult installation guides and reference materials before working with ACRE products.

ACRE Siding

Wrap your home in the eco-friendly beauty and durability of ACRE Siding.

SIDING PRODUCTS

- Shiplap Siding
- Board and Batten Siding
- Edge and Center Bead Siding

Shiplap Siding



AESTHETIC





- Embossed



SHIPLAP SIDING PROFILE DETAILS



Nominal Size	Actual Thickness (A)	Actual (B)	Reveal (C)	Tongue (D)	Gap (E)	Lengths
1"x6"	3/4"	5-7/16"	4-1/2"	1-3/16"	1/4"	12′, 16′, 20′
1"x8"	3/4"	7-3/16"	6-1/4"	1-3/16"	1/4"	12′, 16′, 20′
1"x10"	3/4"	9-3/16"	8-1/4"	1-3/16"	1/4"	12', 16', 20'

- Locking tongue and groove application for a flat and straight install
- Match the finish on your shiplap siding with complementary ACRE trim, decking and porch boards



SHIPLAP SIDING Newton, MA

PRODUCTS USED:
ACRE Shiplap Siding



BOARD AND BATTEN SIDING Easthampton, NY

PRODUCTS USED: ACRE Trim Boards



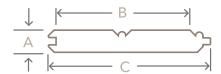
Edge and Center Bead Siding

Edge and Center Bead is a reversible product with a beaded look on one side and a v-groove on the other.

AESTHETIC



EDGE AND CENTER BEAD SIDING PROFILE DETAILS



Nominal	Actual	Actual	Reveal	Lengths
Size	Thickness (A)	Width (B)	(C)	
1"x6"	0.75"	5.4"	5.2"	16'

Board & Batten Siding

BOARD AND BATTEN RECOMMENDATIONS

Board Options (ACRE Sheets)	1/2" or 3/4" Thickness Sanded or Embossed
Batten Options (ACRE Trim)	1" × 2", 1" × 3", 5/4" × 2", or 5/4" × 3"

Learn more at **modern-mill.com**



ACRE Trim Boards

ACRE Trim Boards add a final, beautiful touch to your projects.



AESTHETIC

- ACRE Grain



- Embossed



TRIM BOARDS PROFILE DETAILS



Product Name	Nominal Size	Actual Thickness (A)	Actual Width (B)	Lengths
ACRE 5/8" Trim	5/8" x 3",4",5",6",8",10",12",16"	0.625"	2.5", 3.5", 4.5", 5.5", 7.25", 9.25", 11.25", 15.25"	8' to 20'
ACRE 1" Trim	1" x 3",4",5",6",8",10",12",16"	0.75"	2.5", 3.5", 4.5", 5.5", 7.25", 9.25", 11.25", 15.25"	8' to 20'
ACRE 5/4" Trim	5/4" x 3",4",5",6",8",10",12",16"	15/16"	2.5", 3.5", 4.5", 5.5", 7.25", 9.25", 11.25", 15.25"	8' to 20'

ACRE Rabbeted Trim

ACRE Rabbeted Trim Boards are designed to cover the ends of ACRE siding for a clean and uniform finish. Rabbeted Trim boards eliminate the possibility of unsightly gaps, making for an even more beautiful finish and seamless installation experience.



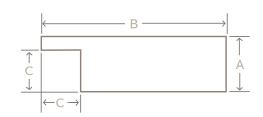
AESTHETIC

- ACRE Grain



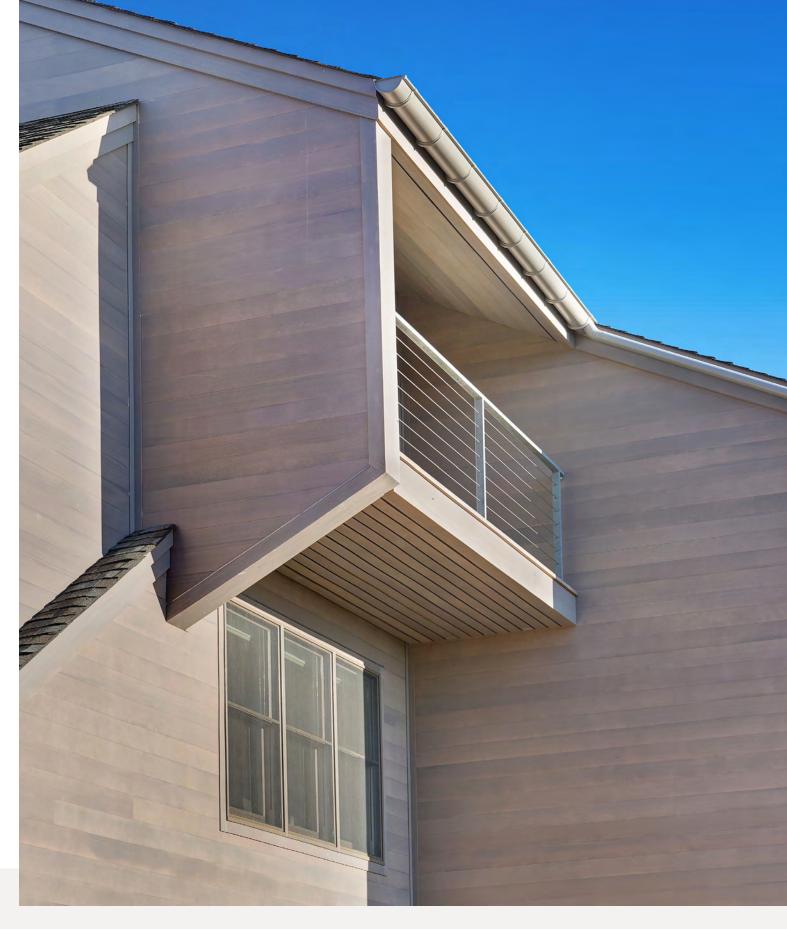
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RABBETED TRIM BOARD PROFILE DETAILS

Product Name	Nominal Size	Actual Thickness (A)	Actual Width (B)	Rabbet Length (C)	Lengths
ACRE 5/4" Trim	5/4" × 4", 6", 8"	1"	3.5", 5.5", 7.25"	0.75"	16′, 20′



CUSTOM SIDING, TRIM AND SOFFIT APPLICATIONS Montauk, NY

PRODUCTS USED:
ACRE Trim (Custom Milled)

Siding and Trim Boards Comparison

PRODUCT	WOOD	POLY-ASH
Strengths	Natural beauty Easy to work with Biodegradable	Upcycles materials Paintable Moldable and millable Durable and resistant to water, weather, pests and fires

Challenges	High-maintenance	Heavy and fragile
	Can be expensive	Susceptible to denting
	Susceptible to water, weather, pests and fire	Can create dangerous dust - requires working outside or respiratory protection
	Sustainable sourcing can be challenging	Tough on tools
		Limited warranty

Aesthetics	***	*
Durability	*	**
Maintenance	*	**

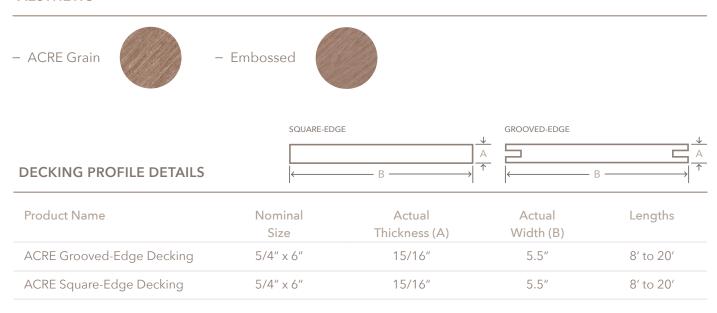
PRODUCT	FIBER CEMENT	ENGINEERED WOOD	ACRE
Strengths	Easy to clean	Easy to clean	Warmth and beauty of real wood
	Durable and resistant to water, weather, pests and fire Paintable Upcycles materials	Durable and resistant to water, weather and pests Paintable Easy to work with Upcycles waste materials	Low-maintenance, easy to clean Durable and resistant to water, weather, pests, including termites Thermoplastic formability Infinite finishing options, including staining and painting Lightweight and easy to work with - standard woodworking tools Upcycles waste materials Industry-leading warranty Made in USA, zero-waste manufacturing
Challenges	Needs repainting and end treatment No ground contact Requires special tools Heavy and fragile Maximum length of 12' panels May create harmful dust	Requires paint and repainting Cannot miter Cut edges susceptible to water Heavy Wood fibers make it more susceptible to moisture and fire No ground contact	New building material, requires education
Aesthetics	*	**	***
Durability	*	*	***
Maintenance	*	**	***

ACRE Decking



Experience the beauty and comfort of a wood deck combined with the unmatched sustainability and durability of ACRE Decking.

AESTHETIC

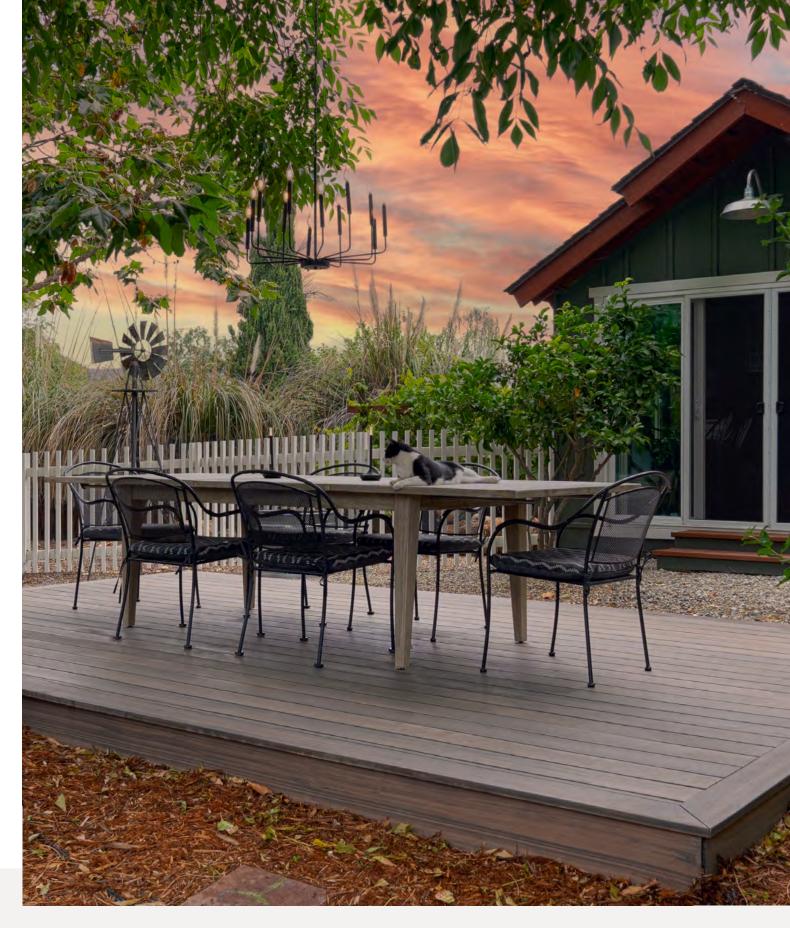


INSTALLATION

Face fasten with our square edge profile.

Or use our recommended fastening systems on our grooved edged profiles:

- CORTEX HIDDEN FASTENER SYSTEM FOR ACRE
- CAMO EDGEX® CLIPS
- CAMO EDGE® CLIPS
- CAMO EDGEXMETAL® CLIPS
- TIGER CLAW HIDDEN FASTENING CLIPS



DEAN SHARP'S CUSTOM BACKYARD DECK Thousand Oaks, CA

PRODUCTS USED: ACRE Decking

ACRE Porch Boards



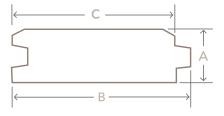
ACRE Porch Boards come in a classic sanded-smooth profile with a tight tongue-and-groove system for minimal gapping between boards.

AESTHETIC

- ACRE Grain



PORCH BOARD PROFILE DETAILS



Actual Thickness (A)	Actual Width (B)	Reveal (C)	Lengths
15/16"	3-5/16"	3"	10′, 12′, 16′

• Locking tongue and groove application for a flat and straight install.



OMNI HOTEL PORCH Washington, NH PRODUCTS USED: ACRE Porch

Decking Comparison

Aesthetics

Durability

Maintenance

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PRODUCT	WOOD	POLY-ASH
Strengths	Natural, stainable beauty	Low-maintenance
	Pleasant feel underfoot	Resistant to weather and rot
	Easy to work with	Upcycles waste materials
	Affordable cost upfront	
	Biodegradable	
Challenges	High-maintenance	Looks and feels synthetic
	Exotic woods are expensive	Cannot be stained
	Susceptible to water, weather, pests and fire	Uncapped edges absorb water
	Can split, crack, gray and decay	Very hot in the sun
	Can be slippery when wet	Heavy
	Sustainable sourcing is challenging	Susceptible to fading, graying, stains and scratches

**

PRODUCT	COMPOSITES	ACRE
Strengths	Low-maintenance Resists water, weather, fire and rot Upcycles waste materials Lighter weight Can be shaped Slip-resistant	Warmth and beauty of real wood Low-maintenance Durable and resistant to water, weather, pests, including termites Slip-resistant Thermoplastic formability Stain or paint without primer Lightweight and easy to work with Upcycles waste materials Industry-leading warranty Made in USA, zero-waste manufacturing
Challenges	Looks and feels synthetic Cannot be stained Requires special tools Susceptible to fading Most do not allow ground contact Can become very hot in direct sun Can mushroom with typical fasteners	New building material, requires education
Aesthetics	**	***
Durability	***	***
Maintenance	***	***





OMNI HOTEL PORCH Washington, NH PRODUCTS USED: ACRE Porch

ACRE Sheet Goods



Suited for a wide range of applications, ACRE Sheet Goods are the perfect medium for executing your ideas. This revolutionary material can be cut, curved, shaped and molded to fit countless applications, both exterior and interior.

AESTHETIC





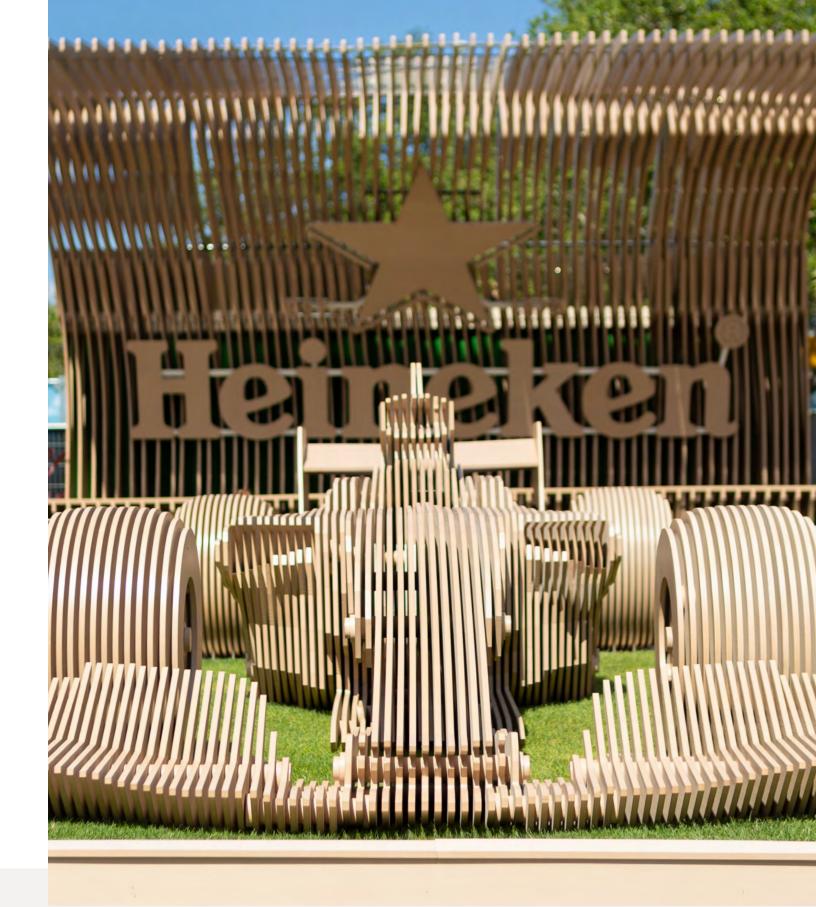
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SHEET GOODS PROFILE DETAILS



Product Name	Thickness (A)	Width (B)	Lengths
ACRE 3/8" Sheet Good	3/8"	4'	8' to 20'
ACRE 1/2" Sheet Good	1/2"	4′	8' to 20'
ACRE 5/8" Sheet Good	5/8"	4'	8' to 20'
ACRE 3/4" Sheet Good	3/4"	4′	8' to 20'
ACRE 1" Sheet Good	1"	4'	8' to 20'



Event Build

THE HEINEKEN® GREENER BAR AT FORMULA 1 Miami, FL

PRODUCTS USED: ACRE Sheets

Sheet Goods Comparison

Aesthetics

Durability

Maintenance

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Resists corrosion High strength Durable and resistant to water, weather and pests Resists water, weather, fire and rot Thermoplastic formability Lighter weight (if foamed) Can be shaped, molded and milled	PRODUCT	HIGH DENSITY POLYETHYLENE (HDPE)	PVC
High strength Durable and resistant to water, weather and pests Resists water, weather, fire and rot Thermoplastic formability Lighter weight (if foamed) Can be shaped, molded and milled Challenges Heavy Expensive Sensitive to stress cracking High coefficient of thermal expansion Difficult to bond Looks and feels synthetic	Strengths	Resists corrosion High strength Durable and resistant to water, weather	Low-maintenance
Expensive Cannot be stained Sensitive to stress cracking Susceptible to fading High coefficient of thermal expansion Inventory position with colors Difficult to bond Looks and feels synthetic			and pests Resists water, weather, fire and rot Thermoplastic formability Lighter weight (if foamed)
Expensive Cannot be stained Sensitive to stress cracking Susceptible to fading High coefficient of thermal expansion Inventory position with colors Difficult to bond Looks and feels synthetic			
Sensitive to stress cracking High coefficient of thermal expansion Difficult to bond Looks and feels synthetic			
High coefficient of thermal expansion Inventory position with colors Difficult to bond Looks and feels synthetic	Challenges	Heavy	Looks and feels synthetic
Difficult to bond Looks and feels synthetic	Challenges		·
Looks and feels synthetic	Challenges	Expensive Sensitive to stress cracking	Cannot be stained
	Challenges	Expensive Sensitive to stress cracking High coefficient of thermal expansion	Cannot be stained Susceptible to fading
Inventory position with colors	Challenges	Expensive Sensitive to stress cracking High coefficient of thermal expansion Difficult to bond	Cannot be stained Susceptible to fading
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	Challenges	Expensive Sensitive to stress cracking High coefficient of thermal expansion Difficult to bond Looks and feels synthetic	Cannot be stained Susceptible to fading

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PRODUCT	TRADITIONAL COMPOSITES	ACRE
Strengths	Easy to work with Upcycles waste materials High Strength	Warmth and beauty of real wood Low-maintenance Durable and resistant to water, weather, pests, including termites Thermoplastic formability Stain or paint without primer Upcycles waste materials Industry-leading warranty Made in USA, zero-waste manufacturing
Challenges	Requires maintenance Cut edges susceptible to water Cannot be stained Wood fibers make it more susceptible to fire and moisture	New building material, requires education
Aesthetics	**	***
Durability	*	***
Maintenance	*	***

Accessories

We highly recommend using the following accessories and adhesives to ensure that ACRE products perform as designed and to expectations.

Refer to our installation guides and product expectations page before installation.



CORTEX HIDDEN FASTENER SYSTEM FOR ACRE Compatible with ACRE Decking, Siding and Trim.



CAMO EDGE® CLIPS
Compatible with ACRE Decking.



CAMO EDGEX® CLIPS
Compatible with ACRE Decking.



CAMO EDGEXMETAL® CLIPS

Compatible with ACRE Decking on metal framing.



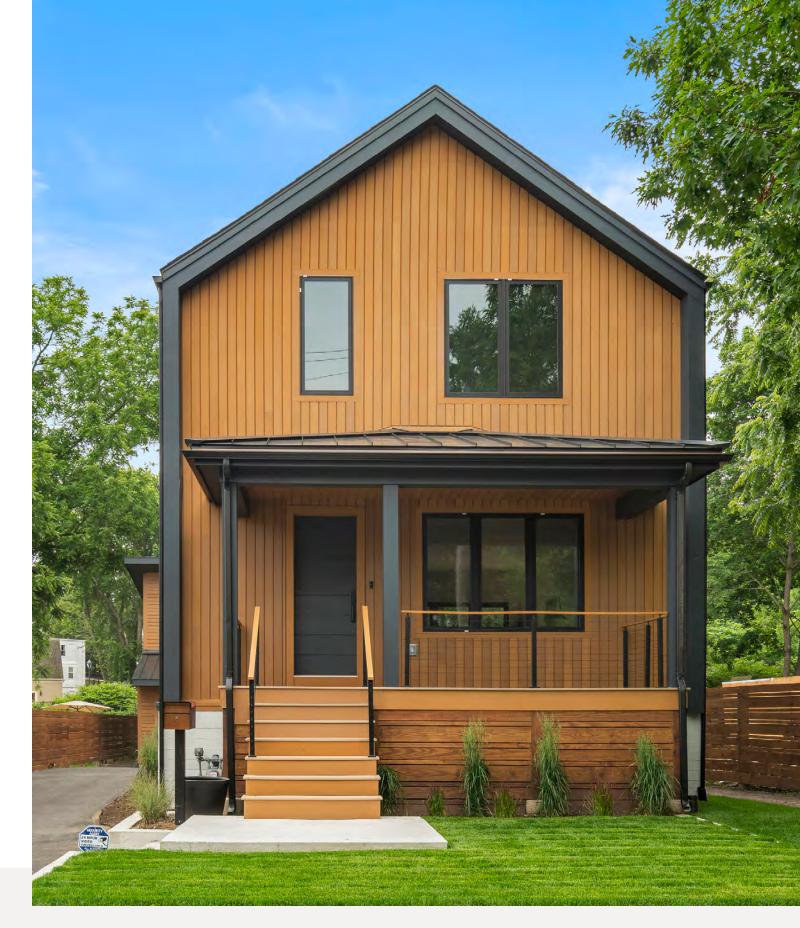
TIGER CLAW HIDDEN FASTENING CLIP Compatible with ACRE Grooved Decking.

Adhesives

We recommend using a PVC glue or cement, polyurethane glue or construction adhesives. Do not use wood glue. Refer to our **installation guides** and **product expectations page** before installation.



TITEBOND PVC TRIM JOINT ADHESIVE Compatible with all ACRE products.



SHIPLAP SIDING Braintree, MA PRODUCTS USED:
ACRE Shiplap Siding

Services available to you



PRODUCT

We offer technical support and product training including AIA Lunch & Learns, product demonstrations, training and support for customer events.



MARKETING

Modern Mill supports your business with sales enablement tools including:

- Digital marketing and social media support
- Point-of-purchase and merchandising
- Samples
- Custom marketing requests



SALES

- Steady and reliable production
- Support for customer presentations and meetings
- Lead generation
- Market and trend analysis to optimize overall sales strategy



SERVICE

We offer exceptional customer service experiences ensuring you have the information and support you and your customers need. Count on regular engagement with Modern Mill's Leadership team.



Furniture/Event Build

LUMINOUS WAVEFORMS BY PHIL SPITLER Northern, CA

PRODUCTS USED:
ACRE Sheets

ACRE™ BY MODERN-MILL PRODUCT EXPECTATIONS

Installation Guides

ACRE contains PVC. It's important to familiarize yourself with its spacing requirements, coatings and all installation guidelines. This will ensure ACRE products perform as designed and to expectations.

- Trim
- Porch Boards
- Siding
- Fencing
- Decking

Coating and Finishing

PROPER INSTALLATION REQUIRES CLOSE ADHERENCE TO MODERN MILL COATINGS GUIDELINES: This is a critical and important step, especially with outdoor applications for ACRE to perform as expected and to avoid the effects of excessive expansion and contraction.

ACRE does not absorb paints, stains, or clear coats as typical woods products do. For best results, we recommend applying coatings with boards on a smooth flat surface prior to installation.

ACRE products generally will not gray like natural woods in exterior applications. However, color may fade over time with increased UV exposure, therefore a UV-resistant stain or paint can help resist fading and make for easier cleaning and care.

Movement

ACRE WILL EXPAND AND CONTRACT WITH ENVIRONMENTAL TEMPERATURE CHANGES. INSTALLATION CONDITIONS AND FINISH COLOR WILL IMPACT EXPANSION AND CONTRACTION. Refer to the proper product installation guide to ensure the best product performance and minimize the effects of expansion and contraction.

Fasteners

USING THE CORRECT TYPE AND NUMBER OF FASTENERS WILL ENSURE MATERIALS PERFORM AS INTENDED. DO NOT USE BRADS, FINISH NAILS OR STAPLES. Fasteners must penetrate solid framing members. All projects and designs are unique. For any installation questions please contact your Modern Mill Rep.

Heat Retention

Coatings will affect product performance, including heat retention, therefore it's important to read the **Coatings Guide** and use manufacturer approved coatings and finishes.

Burning Warning

Safety Warning: Do not burn ACRE products or scraps. ACRE products are not safe to be discarded by burning, used as a firewood, kindling or as any other source of fuel to create and / or maintain a fire or heat source.

MODERN-MILL

601-869-5050 zen@modern-mill.com modern-mill.com

Storage and Handling

We recommend keeping ACRE in a cool, dry spot, out of direct sunlight. Please acclimate ACRE products prior to installation. Always install ACRE immediately after making any cuts.

Adhesives

We recommend utilizing a PVC glue or cement, polyurethane glue or construction adhesives. **Do not use wood glue**.

Stains and Cleaning

ACRE products can be stained by certain foods, drinks and chemicals. Clean up any stains or dirt as quickly as possible and keep areas clean from debris. Soap and water, or a product like Simple Green® can clean most stains. In some cases, light sanding may be required. If using a power washer, we do not recommend pressure above 2500 psi and to use a wide fan tip or oscillating tip and keeping the tip a minimum of 12" from the surface.

Surface Marring (Scuffs) and Light Surface Damage

Like wood, ACRE might endure some dings, dents or marring on the job. Most light surface damage can be removed by simply sanding ACRE lightly with 120 grit sandpaper on a pole or block sander in the direction of the grain. Please note, less than 120 grit sandpaper may scratch the surface and affect the finish when stain is applied. We do not recommend the use of an orbital or palm sander as this can affect the ACRE grain structure.

Environmental Impact

ACRE by Modern Mill is made from upcycled rice hulls in a zero-waste manufacturing facility in the U.S.A. ACRE is tree-free, and free of phthalates, phenol, formaldehyde and adhesives. Contact us at zen@modern-mill.com to learn about options for recycling.

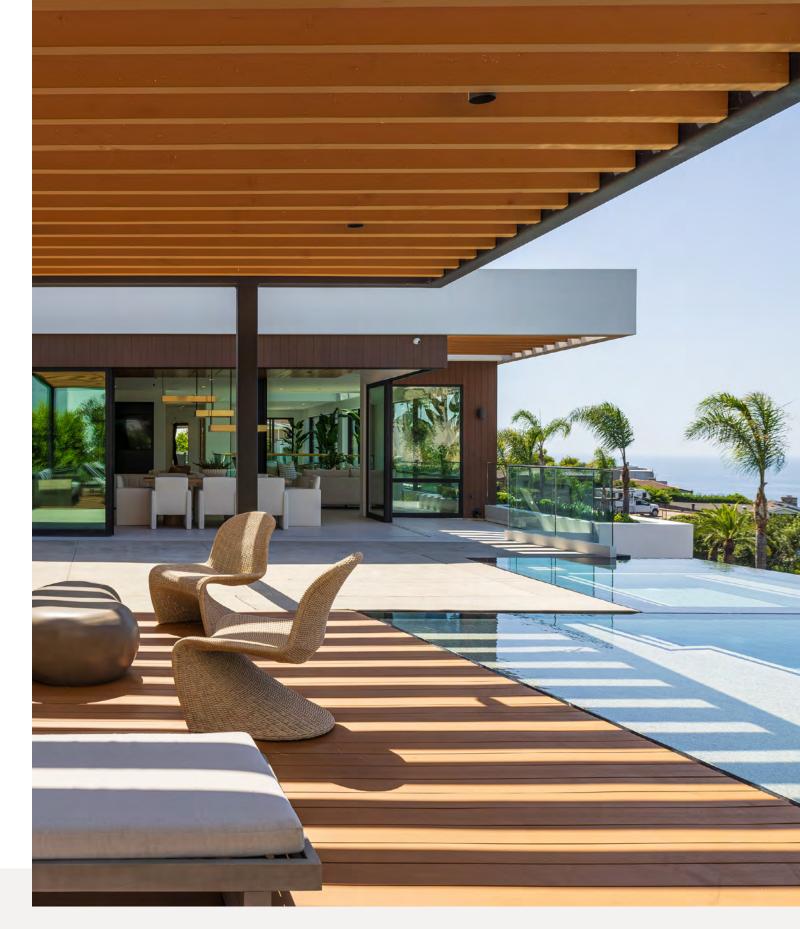
Warranty

ACRE products have a limited lifetime guarantee to be free from material defects that are a result of the manufacturing process, rotting or splintering as a direct result of the manufacturing process or by normal use and service provided conditions described in all installation materials and technical guides are met. In no event shall Modern Mill be responsible or liable for labor, installation, reinstallation, freight, taxes or any other charges related to defective product. Visit our website to learn more: www.modern-mill.com/warranty

WE'RE HERE TO HELP.

Be sure to visit our online **Tech & Training** center for informative technical videos and downloads.





SHIPLAP SIDING Laguna Beach, CA PRODUCTS USED:
ACRE Shiplap Siding





SHIPLAP SIDING Kirkland, WA PRODUCTS USED:
ACRE Shiplap Siding

