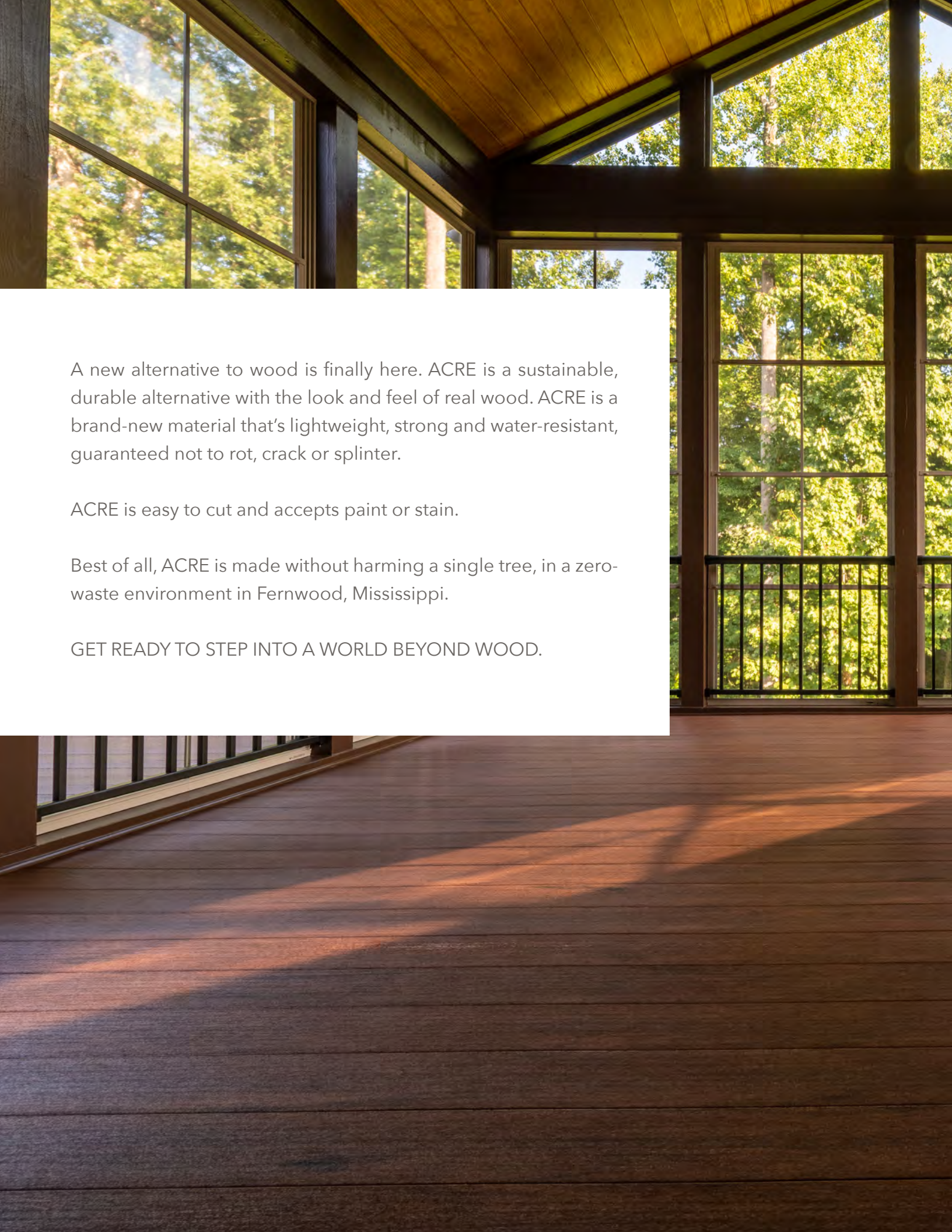




# A WHOLE NEW WAY TO WELCOME

ACRE™ Porch Board Installation Guide

ACRE™ BY MODERN·MILL



A new alternative to wood is finally here. ACRE is a sustainable, durable alternative with the look and feel of real wood. ACRE is a brand-new material that's lightweight, strong and water-resistant, guaranteed not to rot, crack or splinter.

ACRE is easy to cut and accepts paint or stain.

Best of all, ACRE is made without harming a single tree, in a zero-waste environment in Fernwood, Mississippi.

GET READY TO STEP INTO A WORLD BEYOND WOOD.

# 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
- Siding
- Decking
- Porch Boards
- Fencing

## 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 clear coat can help resist fading and make for easier cleaning and care.

## Movement

ACRE has less movement than most synthetic and composite building materials. ACRE will expand and contract as environmental (temperature) conditions change. Refer to the proper product installation guide to ensure the best product performance and minimize the effects of expansion and contraction.

## Heat Retention

ACRE products are generally cooler to the touch than most synthetic or traditional composites. 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.

## Fasteners

ACRE can be joined with commonly available fasteners. Using the correct type and number of fasteners will ensure materials perform as intended. Do not use brad or finish nails. It is important to select the most appropriate fastener in accordance with the application. Consult installation instructions to make sure you are following the proper fastening guidelines.

## 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 phenol, formaldehyde and adhesives. Contact us at [zen@modern-mill.com](mailto: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, re-installation, freight, taxes or any other charges related to defective product. Visit our website to learn more: [www.modern-mill.com/warranty](http://www.modern-mill.com/warranty)

MODERN-MILL

601-869-5050

[zen@modern-mill.com](mailto:zen@modern-mill.com)

[modern-mill.com](http://modern-mill.com)

WE'RE HERE TO HELP.

Be sure to visit our online [Tech & Training](#) center for informative technical videos and downloads.

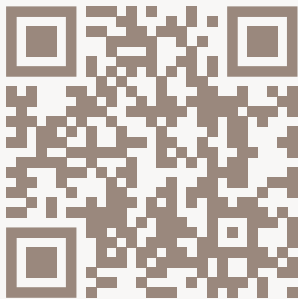


# Contents

Product Expectations	3
Contents	4
Storage and Handling	6
Safety	6
ACRE Porch Board	7
Getting Started	8
Important Information	9
Requirements Before Installation	12
Joist Preparation	13
Expansion and Contraction	14
Installation	16
Finishing and Adhesives	18
Care and Cleaning	19

## PRODUCT APPLICATIONS

Please consult with a Modern Mill representative to ensure your intended use of ACRE products is fit for purpose. Published and current installation guidelines must be followed for ACRE's warranty to remain valid. For example, ACRE Siding is only approved as shiplap and board and batten and must follow prescribed installation guides. Lap Siding is not an approved application.



Visit our online  
**Tech & Training**  
center for  
informative  
technical videos  
and downloads.

[www.modern-mill.com/tech\\_and\\_training](http://www.modern-mill.com/tech_and_training)



### BURNING WARNING

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

### EXTREME HEAT WARNING

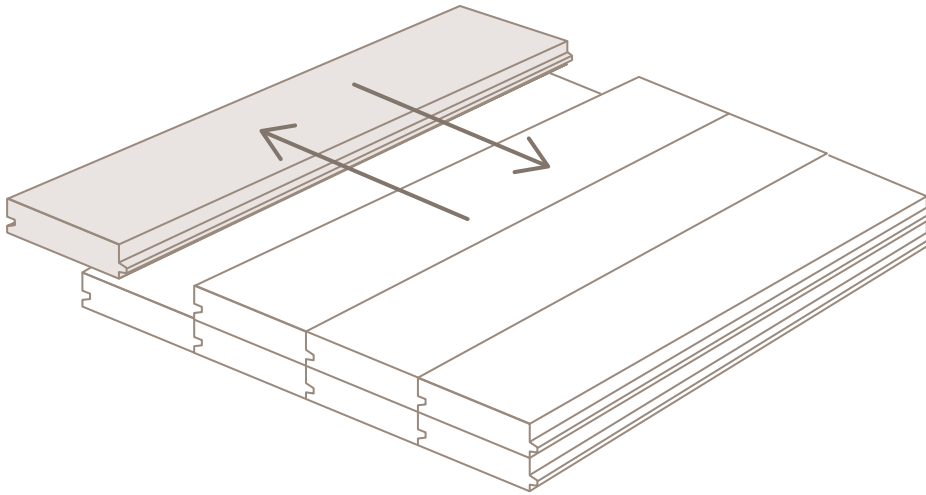
Be aware of excess heat on ACRE surfaces such as but not limited to fire, direct or reflective sunlight, reflective sunlight from energy-efficient window products. Low-emissivity (Low-E) glass can harm ACRE products because Low-E glass products are designed to prevent passive heat gain within a structure and can cause unusual heat build up on exterior surfaces from sunlight reflection. The extreme rise of surface temperatures can create an environment which exceeds normal exposures and may create scenarios which can cause ACRE products to melt, sag, warp, discolor, expand and contract beyond acceptable tolerances or accelerate weathering. Be sure to consult Modern Mill's coatings guide, sales representatives or contact us at [zen@modern-mill.com](mailto:zen@modern-mill.com) or 601-869-5050 for consultative assistance before installation.



# Storage and Handling

---

- Store ACRE Porch Boards horizontally, fully supported on a flat surface.
- Do not place ACRE Porch Boards directly on a surface that can develop excessive heat.
- Store in a cool, dry place.
- We recommend storing with pallet covers to keep it clean and protected.
- ACRE Porch Boards are packaged interlocked. Pull boards across the row and not straight down.
- Acclimate ACRE to the temperature it will be installed at for at least two hours before processing.
- During installation, be aware of changes in ambient temperature that could affect product gapping.



## Safety

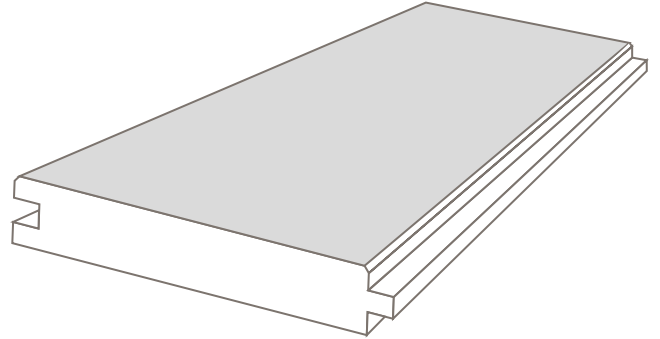
---

- Wear safety glasses and appropriate personal protective equipment (PPE) for job site conditions.
- Follow proper safety practices for using all power tools and any job site equipment.

# ACRE Porch Board

- ACRE Porch Board is a reversible product providing either a traditional porch board appearance, or a smooth continuous surface.

## PORCH BOARD BEVEL EDGE SIDE



ACRE products require coatings with an LRV value 55 or greater.  
See our Coatings Guide on [modern-mill.com](https://modern-mill.com) for more information.

Porch Board Dimensions	Actual	Reveal
5/4 x 4" x 10'	15/16" x 3-5/16" x 10'	3"
5/4 x 4" x 12'	15/16" x 3-5/16" x 12'	3"
5/4 x 4" x 16'	15/16" x 3-5/16" x 16'	3"

Note: When calculating material square footage requirements, consider the board reveal is 3".

# Getting Started

---

## TOOLS YOU WILL NEED

Readily available tools can be used for installing ACRE fencing. The following tools are recommended. Use extreme caution and be sure to use all tools per applicable manufactures' instructions.



Miter Saw



Tape Measure



Exterior rated minimum #7 x 2-1/4 in, trim head screws



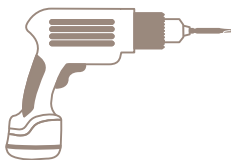
Safety Glasses



Minimum #8 x 2 1/2" screws for surface fastening



Pencil



Drill

For best results use a fine-toothed finish blade. A jigsaw can be used to cut around obstructions depending on the design of your project.

ACRE Porch boards can be stained, painted, or left natural with appropriate clear coat or sealant. Please visit the ACRE [Coatings Guidelines](#) for more information.



# Important Information

---

## AIRFLOW AND DRAINAGE

Be sure there is adequate and unobstructed airflow under 50% of the porch perimeter to allow for cross-ventilation. This aids in avoiding heat buildup and promotes dryness. Add drainage and grade flat areas so that water can easily flow away. There should be a minimum of 1.5 inches from the bottom of the joists to the ground.

Under porch storage spaces or roof deck installations can restrict airflow and result in a buildup of heat or humidity. Be sure to follow instructions for airflow and drainage requirements. Modern Mill always recommends consultation with a licensed architect, engineer or local building official before installation.

## FIRE PITS OR HEAT SOURCES

Do not install fire pits or heat sources on top of ACRE Porch boards. Always protect ACRE products from heat. Wood-burning or gas fire pits can damage ACRE due to extreme heat and/or loose burning embers.

## DECORATIVE OBJECTS

Rubber or vinyl products such as welcome mats, planters, or outdoor decoration may cause discoloration especially with prolonged use.

## WALKING SURFACE

ACRE Porch boards can be installed sanded side or embossed side up based on customer preference.

## CONSTRUCTION SPACE

During construction, keep the deck's surface clear from excessive sand, dirt, or dust from masonry, landscaping or other products involved in the construction process. Do not use ACRE decking as a work surface. Do not cut, stain, paint or glue on or near ACRE decking. Do not cut or drill metal as metal shavings may be hot and embed into ACRE deck boards.

## USE OF LADDERS

When using a ladder, we recommend laying down a sheet of plywood over the porch surface to disperse the load of the ladder's feet to nearby underlying joists. Secure the plywood sheets to keep them from slipping in a way that will avoid leaving holes in your porch once the plywood sheet is removed. Always follow ladder manufacturer's instructions and safety tips.

## STATIC ELECTRICITY

The buildup or generation of static electricity is a natural phenomenon that can occur with many surfaces including composite Porch Board under certain conditions. If excessive static buildup exists, ACL Staticide® can help. See link for more information:

[www.aclstaticide.com/antistatic\\_coatings.html](http://www.aclstaticide.com/antistatic_coatings.html).

## CANTILEVERING

For best results, do not cantilever over ½”.

## NAILING

Do not nail ACRE Porch Boards. See section, “Fastening Recommendations” (page 16).

## WARRANTY

Modern Mill offers a Limited Lifetime Warranty. Visit [www.modernmill.com](http://www.modernmill.com) for the most up-to-date information.



# Requirements Before Installation

---

## BEFORE GETTING STARTED

When working on any new construction, renovation or repair project, always wear protective clothing and safety equipment. Safety glasses, gloves, a dust mask, and long sleeves are recommended especially when cutting or sawing. Fasteners have sharp edges. Use proper care when handling. Safety Data Sheets can be downloaded from [www.modern-mill.com](http://www.modern-mill.com).

Ensure boards are dry before installation.

## PAINTING, STAINING OR FINISHING ACRE PRODUCTS

Pro Tip: For best results, applying paint, stain, or clear coats on a smooth flat surface is recommended. ACRE products may be finished after installation, however the viscosity of the coating could result in an uneven appearance if not monitored closely.

Coat ACRE with manufacturer recommended water-based paints, stains or sealers.

If you choose to paint ACRE, use a coating with a Light Reflective Value (LRV) 55 or greater.

For any color with an LRV below 55, pay close attention to our approved coatings for darker



Follow this QR code for a list of finish manufacturers and products that have passed paint-manufacturer testing standards and for technical assistance.

## MOISTURE

- Avoid installing product in standing water or areas that can stop water from draining away from the building

# Joist Preparation

---

## JOIST LOCATION

- Prior to installation. Be sure that all joists are level and structurally sound. Ensure that there are no nails or screws protruding.
- Proper joist spacing is required. Joist spacing must not exceed 16" on center. A joist spacing not exceeding 12" on center is recommended for maximum rigid feel.
- Do not exceed 12" joist spacing when installing any diagonal pattern.
- Each ACRE Porch Board must span at least three joists.
- To accommodate heavy items such as hot tubs, planters, etc., consult a local building engineer or inspector for span recommendations.
- As joists are installed, run a string line to ensure that the tops of the joists are in plane, as ACRE Porch Boards will conform to the contour of the joists to which it is attached. It may be necessary to shim or plane joists, due to size variations in lumber. Be sure to sort and exclude any extremely crowned joists or lumber material.
- Install solid wood blocking between each joist, placed in rows at maximum every 4' to 6' within the structure using exterior grade screws.
- Joists used in construction should be treated 2 inches x 8 inches or larger.

## STAIRS

- Do not use ACRE Porch Boards for stair treads.

## DRAINAGE

- ACRE Porch Boards are designed to be tightly butted together. Ensure proper slope for water drainage.

# Expansion and Contraction

---

- ACRE products undergo a degree of linear expansion with changes in weather or seasons. Expansion and contraction is most significant where extreme temperatures may exist.
- Be aware of changes in ambient temperature, which could impact the effects of expansion and contraction.
- In areas where extreme temperatures swings are prevalent, adding 2x blocking at butt joints is recommended.
- Store and cut ACRE out of direct sunlight.
- Fasten boards as soon after cutting as possible to minimize the effects of expansion and contraction.
- Securely fasten board ends, splices and abutments directly into framing using two minimum #8 x 2 1/2" face fasteners.
- Position face screws at or within 1/2" of each board end or joint, and 3/4" from the side of the board.
- Whenever possible, use shorter lengths, lighter colors, and break long straight runs of decking with splitter / divider boards to reduce the effects of expansion and contraction.
- For best results, keep boards as cool as possible during securing.
- Framing/sub-structure must be in compliance with all state and local building codes.
- No floating substructures should be used in any application with ACRE.



# Installation

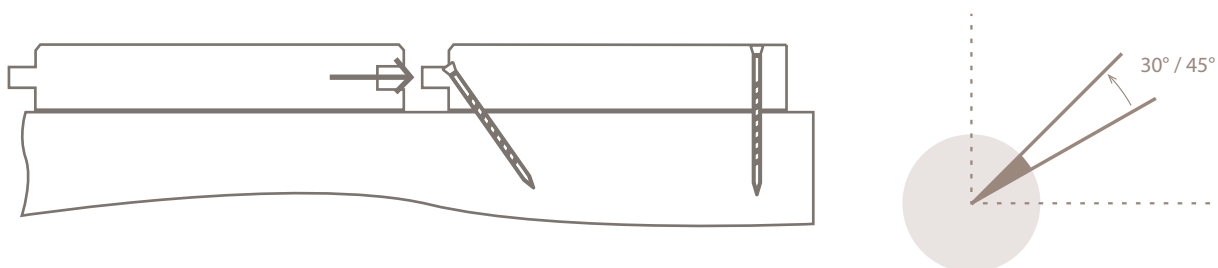
ACRE Porch Board is a reversible product. Determine which face will be the walking surface prior to starting installation.

To have fasteners last as long as ACRE Porch Boards, use a high-quality fastener that meets the following specifications:

- Use fasteners rated and approved for exterior use. Note: coastal applications may require special stainless steel fasteners.
- Minimum Screw Size: #7 x 2" trim head.
- Minimum Face Screw Size: #8 x 2 1/2".
- Be sure the screws that are driven into the tongue of the board and seat 1/16" into the surface above the tongue to allow complete insertion of the next board.
- Face fasteners should be driven flush to the board surface. Do not over-drive screws.

## INSTALLING THE FIRST COURSE

- Install the first board with the grooved edge against the house. If installing perpendicular to the house, install the starting board at the outside edge of the porch.
- Secure the first board using minimum #8 x 2 1/2" face fasteners into joints no more than 16" on center along the grooved edge of the board.
- Next, finish securing the first board by driving a fastener in a 30° to 45° angle as shown in the diagrams below.





## INSTALLING THE REMAINING BOARDS

- Install the next board by inserting the grooved edge over the exposed tongue on the starting board installed in the previous step.
- Using a piece of scrap and a rubber mallet, ensure that the board is fully inserted and boards are tightly joined together.
- After the board is completely seated, drive fasteners into each joist by driving a fastener in a 30° to 45° as shown in the previous step.
- Ensure the board is tight to the joist to mitigate any irregularities in the porch installation.
- Continue to add boards until the outer edge of the porch is reached.
- Removing the tongue may be required for the end piece. Use a table saw or circular saw as needed.
- Attach the last board by face fastening through the top or toe fasten along the outer edge.



# Finishing and Adhesives

---

- Apply stains or clear coats on the ground before installation.
- Coat ACRE products with manufacturer recommended water-based paints, stains, or sealers.
- If you choose to paint ACRE, use a coating with a Light Reflective Value (LRV) 55 or greater.
- For any color with an LRV below 55, pay close attention to our approved coatings for darker colors.

## ADHESIVES

- Use recommended PVC glue, cement, polyurethane glue, or construction adhesives.
- DO NOT USE WOOD GLUE.
- When gluing a joint, the use of mechanical fasteners on each side of the joint is recommended to allow the bonding time.
- For best results, surfaces to be glued should be smooth, clean, and in complete contact with each other.

# Care and Cleaning

---

- Wash down the exterior surface with water every 6 - 12 months.
- For easier care and cleaning, we recommend coating your ACRE deck with an exterior grade water soluble paint or stain and protective coating.
- Avoid the use of rubber-backed mats, tarps, or landscape items.
- Be mindful of products which contain chemicals may alter the appearance of ACRE decking.
- To clean ACRE products use a gentle all-purpose cleaner such as Simple® Green with a natural all fiber brush.
- Follow manufacturer instructions on all cleaning products. Test first on an inconspicuous area of the deck to ensure the surface remains undisturbed.
- Do not use traditional composite deck cleaners. ACRE decks are made from natural fibers and PVC / polymers. Use gentle cleaning products as recommended.
- If using a power washer, we do not recommend pressure washing above 2500 psi. We suggest testing in an inconspicuous area first to ensure it will not damage the product's surface.
- If power washing, we recommend using a wide fan tip or oscillating tip, and keeping the tip a minimum of 12" from product surface.
- As with any walking surface take caution in icy or wet weather conditions.
- For ice removal, most products containing calcium chloride can be used without damage to the deck / porch surface. These products may leave a white residue which can be cleaned using the cleaning guidelines above.
- Metal shovels or plastic shovels with a metal edge may damage the surface of your ACRE deck and are not recommended for clearing snow or ice from the porch surface.
- We recommend clearance between ACRE products and landscaping. Prune any vegetation back that is touching the wall.
- To remove rust stains, use household cleaners such as Krud Kutter "the must for rust".



ACRE™ BY MODERN·MILL

It's better building,  
one tree-free board at a time.

MODERN·MILL

---

[modernmill.com](https://modernmill.com)

PoarchBoard\_Install\_2023.07