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PRODUCT APPLICATIONS DISCLAIMER

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.



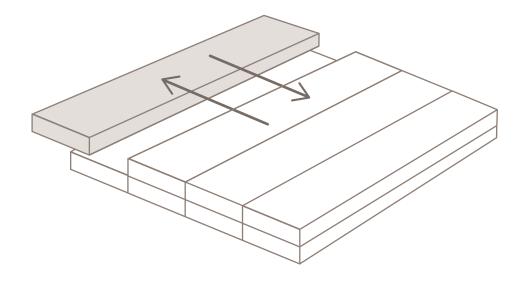
Visit our online Tech & Training center for informative technical videos and downloads.



www.modern-mill.com/tech_and_training

Storage and Handling

- Store ACRE trim horizontally, fully supported on a flat surface.
- Do not place ACRE Trim directly on a surface that can develop excessive heat.
- Store in a cool, dry place to avoid extreme heat.
- If kept outside, we recommend storing with undamaged pallet covers to keep it clean and protected.



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.



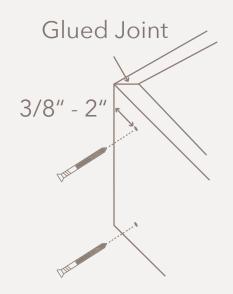
Fastening

- Standard wood working tools (saws, router bits, drills, etc.) are compatible with ACRE Trim.
- ACRE accepts screws and nails easily with a flush finish. We recommend using exterior grade fasteners such as stainless steel or hot-dipped galvanized.
- Use minimum 6D or 8D screws or nails designed for trim, soffit, or siding applications.
- Cortex screws and matching plugs are available for 3/4" and 1" thick trim boards.
- Staples, small brads and wire nails cannot be used.
- Fasteners utilized should be long enough to penetrate the solid substrate a minimum of 1 ½".
- All fasteners must hit a solid framing member.
- Similar to wood, use two fasteners per every framing member of trim board applications.
- Number of fasteners is dependent on board width. Please see chart below for recommendations:

TRIM BOARD FASTENING SCHEDULE

Board Width	Fasteners / Width 16" O.C. MAX
4" - 6"	2
8" - 10"	3
12"	4

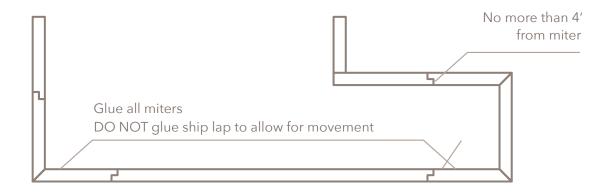




- Fasteners must be installed no less than 3/8" or more than 2" from edge of board.
- There must be two fasteners on each side of board joint (scarf, miter, etc.).
- Pneumatic nail guns can be used. Air pressure should be adjusted based upon gun, temperature, substrate, etc.

Expansion and Contraction

- Properly fastening ACRE Trim Boards & Dimensional Lumber according to guidelines above will minimize expansion and contraction.
- See chart on page 9 for expansion and contraction allowances, allow 1/8" per 18 feet of ACRE Trim Boards & Dimensional Lumber for expansion and contraction.
- When gaps and / or joints are glued on long runs of Trim Boards, allow expansion/contraction at the end of the (run).
- When joining boards in areas such as under eves on fascia, a shiplap joint is recommended with exception of corners (a mitered corner will give the best appearance).
- We recommend all miter joints be glued with appropriate adhesive. Do not glue ship lap to allow for movement.



- Without proper gapping, expansion and contraction may be an issue on longer runs comprised of three or more 18' boards. Short lengths (around windows for example) can and should be built with tight joints.
- Based on temperature at time of installation (see chart on the right) create a gap between boards and follow fastening guidelines as outlined above.



35 Degrees (F) and under	1/16 inch / 1.6 mm
36-89 Degrees (F)	1/32 inch / 0.8 mm
90 Degrees (F) and above	0 inches / 0 mm

Painting & Adhesives

- We recommend an exterior grade water soluble paint or stain as a protective coating to further enhance resistance to fading and for easier cleaning. Choose a product with an LRV value of 55 or greater or see our Coatings Guide for approved darker colors.
- ACRE can be finished with water-based oils, stains and paints. Choose finishes based on application and environmental needs.
- Edge treatment may be necessary when using darker colors, longer boards and/or if in high termperature range climates. Exposed edges can be finished to provide a seamless appearance.
- ACRE can be bonded with a variety of different adhesives, for example PVC cement or adhesives designed to work with PVC. Modern Mill uses Oatey PVC cement on our Fernwood Adirondack chair https://www.oatey.com/products/cementsprimerscleaners/cements.
- When gluing a joint, the use of mechanical fasteners on each side of the joint is recommended to allow adequate bonding time.
- For best results, surfaces to be glued should be smooth, clean and in complete contact with each other.
- To bond ACRE trim to other substrates, various adhesives may be used. Consult adhesive manufacturer to determine compatibility.





Thermoforming

- With the proper application of heat, you can bend, mold and manually shape ACRE trim.
- Be sure to test a small amount before full application.
- Radius will depend on board thickness. If the radius is too tight, the surface may tear.
- Allow sufficient time for heating, positioning the board, and cooling, for heating approximately 1-1.5 minutes per mm board thickness.
- Temperature approx. 250°F.

- Hold (lock) time at temperature approx. 3-4 minutes.
- Cooling down, approx. 1-1.5 minutes per mm thickness.
- ACRE can be thermoformed using a vacuum press.
- ACRE trim can be heated using heat blankets, convection ovens, radiant ovens, heaters, or heat guns.
- A mold may be required or helpful for deep shapes.
- Modern Mill assumes no liability, for any harm or damage to persons, product, or property related to thermoforming.

Care & Cleaning

- We recommend an exterior grade water soluble paint or stain as a protective coating and for easier cleaning.
- Like some premium & exotic hardwoods, ACRE is naturally resistant to mildew, fungi and pests.
- For regular maintenance and cleaning, a hose or power washer may be used to remove any dirt or debris.
- If using a power washer, we do not recommend pressure washing above 2500 psi. We suggest testing in an inconspicuous area first.
- Make sure to test the setting for the power washer to ensure it will not damage the surface of the trim.
- We recommend using a wide fan tip or oscillating tip and keeping the tip a minimum of 12" from surface. Test in an inconspicuous area.
- Do not use any acids or harsh chemicals to clean ACRE trim.

Repair & Patching

- If ACRE trim is ever damaged, it can be repaired as you would patch or repair wood.
- Standard wood filler or putty can be used to patch any gouges or voids.
- Sand the wood filler once cured and re-finish the area being repaired.



Frequently Asked Questions

DO I NEED TO PAINT/FINISH ACRE TRIM?

ACRE trim can be used in its natural state, unfinished as the properties of the material are naturally water-resistant and resistant to rot, mildew, mold, and termites. The option to finish the material provides additional design options to match adjacent cladding, as well as provide improved stain resistance and make cleaning easier.

IF I DECIDE TO PAINT OR STAIN ACRE TRIM, WHAT ARE THE REQUIREMENTS?

You can finish ACRE with any water-based paint, stain, or sealer. If you choose to paint make sure the coating has a Light Reflective Value (LRV) above 55% or see our website for approved coatings for darker colors and technical assistance.

HOW DO YOU CLEAN/MAINTAIN ACRE TRIM?

ACRE trim can be cleaned using water and/or a mild detergent. If using a pressure washer, we recommend using a wide fan tip or oscillating tip and keeping the tip a minimum of 12" from surface. Do not utilize a high pressure setting.

CAN ACRE TRIM BE USED IN STRUCTURAL APPLICATIONS?

ACRE trim should never be used in structural applications. Fasteners utilized should be long enough to penetrate the solid wood substrate a minimum of 1 ½".

EXTREME HEAT WAR

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 zep@modern.mill.com or 601-869-5050 for consultative assistance before installation.



