



TruWood[®]
SIDING

INSTALLATION INSTRUCTIONS

STANDARD LAP AND SELF-ALIGNING LAP SIDING

7/16" Standard Laps include: All Old Mill[®] Widths and Cedar Shake Lap

1/2" Self-Aligning Laps include: 8" and 12" Old Mill[®] and Cedar Shake Lap

IMPORTANT Read and understand all storage and installation instructions before siding application.

Warranty: **800.329.1219** Sales: **800.417.3674** • www.CollinsWood.com

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Warranty Requirements

- The terms of the Limited Warranty require strict compliance with the installation instructions. These instructions are supplemental to applicable local building codes and standard building practices; compliance with the most stringent of these is required. Architectural designs, plans and specifications must comply with these instructions.
- All deviations from the installation instructions must be pre-approved in writing by The Collins Products LLC Product Performance Manager.**

Proper Storage

- Store siding flat and support it on stringers to avoid sagging and contact with the ground.
- Siding must be covered and protected from the elements.
- Allow siding to acclimatize to local conditions prior to installation.

Construction Essentials

The structure must be constructed to meet applicable local building requirements, HUD minimum property standards or HUD manufactured housing construction and safety standards.

Lap siding does not provide shear strength.

A. FRAMING

- Framing must not exceed 16" on center (o.c.).
- Although not recommended, where 24" o.c. vertical framing is used, wood-based sheathing is required. Follow product specific nailing pattern (See Fig 4) and nail to framing 24" o.c. with intermediate nailing 12 o.c. to sheathing.

B. SHEATHING

- Sheathing is required for all siding products. Recommended sheathing is a minimum of 7/16" OSB or 1/2" exterior grade plywood.
- Foam sheathing or other composite sheathing may be substituted. Collins Products will not be responsible for problems related to crushing of the foam during or after siding applications, or moisture accumulation in the wall cavity.

C. VAPOR BARRIERS, VENTILATION AND MOISTURE CONTROL

- Roofs, gutters, roof to wall transitions, windows, doors, decks and attachments shall be designed, flashed and installed to prevent moisture entry into the siding or wall cavity or accumulation of water against the siding other than ambient moisture.
- A continuous vapor barrier rated 1 perm or less is required across the interior side of all walls to be sided. Examples include 6 mil polyethylene and kraft-backed or foil-backed insulation stapled tightly to the face or sides of the studs. See Fig 6 and 7.
- A vapor barrier rated 1 perm or less must be installed between the wood sill, wood framing and the foundation wall.
- A vapor barrier ground cover must be used in crawl spaces.
- Crawl spaces, attics and living spaces must be ventilated at least to the minimum specified in HUD standards.

Proper Installation

A. FASTENING

- Use corrosion resistant 8d boxhead nails with a minimum head diameter of 1/4" (10% variance).
- Fastening must not exceed 16" o.c.
- All lap products require that the butt joints be located on the studs and nailed at the joints. See Fig 2.
- Nails must penetrate wood framing 1-1/2". See Fig 1.
- Avoid countersinking nails or rupturing the surface of the siding. If countersink occurs, caulk nail prior to painting. See Fig 1.
- Fasten from end to end or center to end to avoid internal stress.
- Nailing schedule for soffit application of siding products must not exceed 16" o.c.
- See TruWood® product guidelines on page 4 for specific instructions.

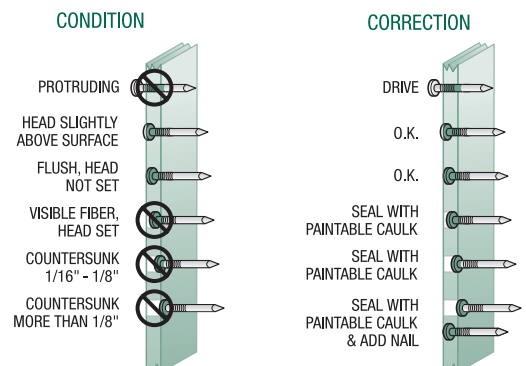


FIG. 1

Standard and Self-Aligning Lap Siding

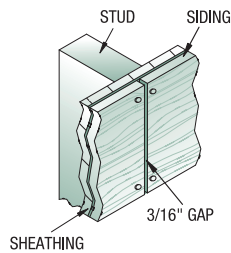


FIG. 2

B. GAPS, CLEARANCES, AND CORNERS

- Leave 3/16" gap at all butt joints, around all doors and window frames, and at joints in the soffits for all lap and square edge siding products. Caulk all gaps. See Fig 2.
- Gap the siding at all corners 3/16" and caulk. See Fig 3.

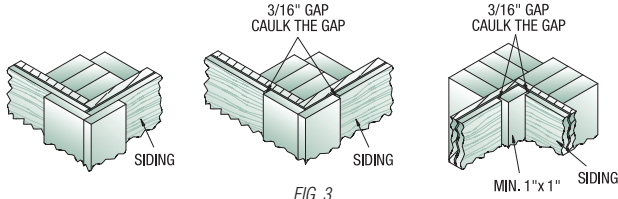


FIG. 3

- If butt joints are vertically aligned at a common location on the wall, joints should be gapped, caulked and vertical trim applied over the joints. This method minimizes long term maintenance.
- If butt joints are staggered, vertical butt joint covers are required to protect the butt joints and to reduce long term maintenance of caulking. Caulking butt joints in lieu of joint covers is permitted but not recommended as it requires a higher degree of homeowner maintenance.
- Siding must have a minimum 2" separation from concrete or be appropriately flashed. Siding must be 6" from soil or landscaping material.
- Where the siding meets the roof, it must be spaced a minimum of 2" from the plane of the roof and be properly flashed. The cut edge must be primed and painted.

C. CAULKING

- Use best quality flexible, paintable, mildew-resistant exterior grade caulking material.
- Caulk around all openings such as window and door frames and at butt joints. Caulk all overdriven nails. See Fig 1.
- Caulk all horizontal trim material.

D. PAINTING

- Touch up damaged areas with a high quality oil or alkyd-based primer.
- Siding must be finish-painted within 90 days after installation. If siding is exposed for a longer period, reprime the siding with a high quality oil or alkyd-based primer.
- Siding must be clean and dry when paint is applied.
- Use only high quality exterior acrylic latex or alkyd-based paint containing an appropriate amount of mildewcide for local moisture conditions. For best performance, 100% acrylic latex paints are recommended. **Do not use water-based paint on smooth products.**

- Follow paint manufacturer's recommendations for engineered wood siding.
- A minimum of 4 dry mils, including factory primer, is required. This is best achieved with two coats of finished paint.
- Drip edges and grooves must be well covered.
- All surfaces and cut edges must be painted in place.

Installation Errors That Void the Warranty

- Do not apply siding to a rain soaked structure.
- **Do not apply siding that is wet. Wet siding can shrink after application and shrinkage is not covered by the TruWood warranty.**
- Wet blown insulation is not allowed.
- Do not apply stucco or composite stucco products over the siding.
- Do not apply the siding to floating structures or buildings over water.
- Staples are not an acceptable fastening device.
- Do not apply to wall systems without conventional framing.
- Do not bevel cut the siding edges at butt joints.
- Do not paint in wet or cold conditions.
- Do not use latex paint on smooth products.
- Do not use shake and shingle paints, low quality flat oil or alkyd paints, vinyl acetate (PVA), vinyl acrylic or vinyl acetate-acrylic copolymer paints. These coatings do not adequately protect the siding.
- Do not blind nail siding.

Note: This list is not intended to be inclusive of all errors that would void the warranty. These are just some examples.

Key Homeowner Maintenance Responsibilities

- At least annually inspect and renew all caulking and immediately repair any water penetration issues.
- Maintain gutters and downspouts to avoid water cascading down walls.
- Ensure lawn sprinkler patterns are directed away from structures.
- Follow paint manufacturer's recommendations for repainting and paint maintenance.

Codes and Standards

TruWood® Siding meets the requirements of the following codes and standards:

- 2006 International Building Code
- 2006 International Residential Code
- ICC ESR-2588
- Federal Manufactured Housing Standards
- American National Standard ANSI-CPA 135.6
- California Wildland-Urban Interface (WUI)*

* See special WUI application requirements on page 4.

STANDARD LAP AND SELF-ALIGNING LAP SIDING

Product Guidelines

Apply these lap siding products horizontally on walls and gables that meet racking requirements.

- Start application by nailing a starter strip (approximately 1-1/2" wide) aligned with the bottom edge of the sill plate. Level and install the first course of siding so its lower edge is 1/8" to 1/2" below the starter strip.
- For **Standard Lap** products overlap successive courses at least 1." See Fig 4.
- **Note: For Self-Aligning Lap Siding** place the self-aligning lap edge on the top of each additional course; make sure the self-aligning lap joint is resting flat on the lower piece. See Fig. 5
- Nail lap products 5/8" to 3/4" above the drip edge. Be sure nails penetrate through both pieces of siding and into studs. See Fig 4 & 5.
- Periodic checks are necessary to assure the lap remains level. Make adjustments as necessary.
- Vertical butt joints must be located only on studs. Each piece of siding must be nailed top and bottom to studs. See Fig. 2.
- When butting siding to inside or outside corners, use a minimum 4/4" thick (nominal) dry wood material. TruWood Trim is recommended. See Fig 3.

Lap Nailing

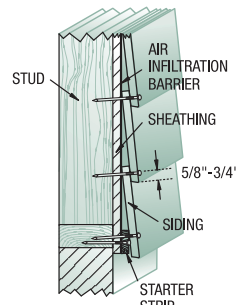


FIG. 4

Self-Aligning Lap Nailing

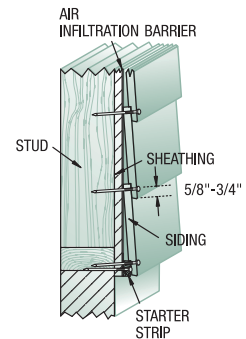


FIG. 5

California WUI Application Requirements

- Framing must not exceed 16" on center.
- Minimum 5/8" Type-X gypsum wallboard sheathing is required.

Recommended Methods for Butt Joint Placement on Wall Sections:

- Vertically align butt joints at a stud (See Fig 6), fasten as required, gap 3/16", caulk, and cover with trim.
- Stagger butt joints across wall (See Fig 7) making sure joints are on studs for required nailing. Gap joints 3/16" and use joint covers.

Vertically Aligned Joints

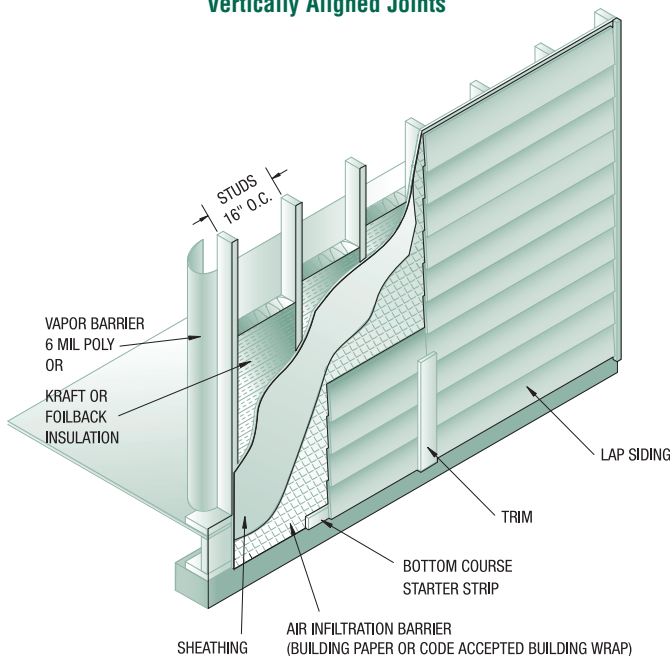


FIG. 6

Staggered Joints

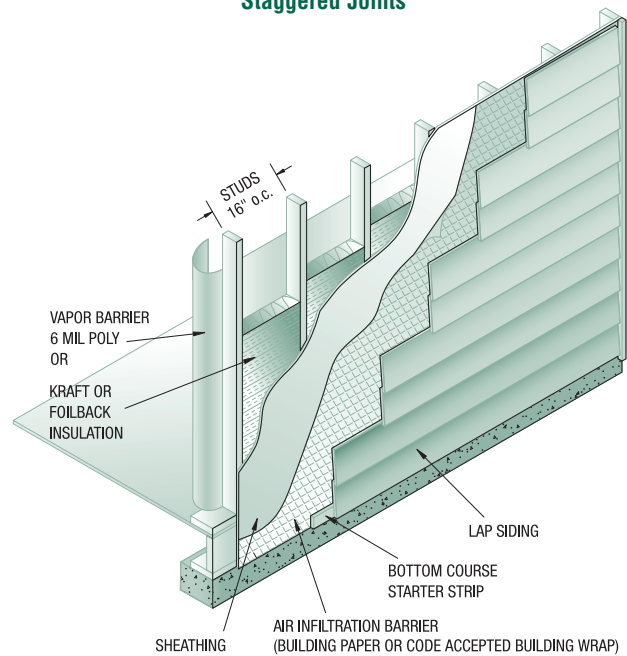


FIG. 7

TRUWOOD SIDING & TRIM 30 YEAR LIMITED WARRANTY

1. LIMITED WARRANTY – TRANSFERABLE WARRANTY COVERAGE

THIS LIMITED WARRANTY IS SUBJECT TO THE LIMITATIONS AND RESTRICTIONS DESCRIBED IN SECTIONS 3 AND 4 BELOW.

Collins Products ("Collins") warrants that its TruWood Siding & Trim products (the "Products") were manufactured to meet or exceed the specifications set forth in ANSI-CPSA 135.6. Collins warrants its Products, exclusive of factory applied coatings, against defects in material, workmanship and buckling (defined as more than 1/4" deflection between studs installed at 16" on center) of the basic structure for a period of 30 years from the date of installation ("Product Warranty Period") as long as the Products have been stored, handled, installed, finished, and maintained in accordance with TruWood installation instructions and care and maintenance recommendations in effect at the time of installation ("Collins Instructions"). Collins further warrants the factory-applied primed coatings (the "Coatings"), exclusive of the Products, against defects in material and chipping, peeling and blistering for 5 years from the date of installation as long as the Products have been stored, handled, installed, finished, and maintained in accordance with Collins Instructions. This Warranty is transferrable from the purchaser of the Products to the owner of the structure on which the Products are installed, if purchaser and structure owner are not one and the same. The Warranty is further transferable from the owner of the structure on which the Products are installed to the first subsequent owner of the same structure (collectively, the "Owner"). The Warranty is not transferrable to any subsequent structure owner.

2. Warranty Remedies

THIS SECTION PROVIDES THE SOLE AND EXCLUSIVE REMEDY AVAILABLE TO ANY OWNER.

If any Product or Coating fails to perform as warranted (or fails to perform in accordance with any implied warranty not disclaimed herein), during the first five years from the date of installation, at its option, Collins will either (i) provide labor and materials necessary to replace the defective Products or (ii) reimburse Owner for any replacement costs in an amount up to two (2) times the original purchase price of the Products, less any replacement costs directly attributable to Owner's failure to follow Collins Instructions ("Maximum Reimbursement"). Starting in the 6th year following original installation of the Products, Maximum Reimbursement for replacement costs will be reduced by 4% per year, such that from and after the 30th year, Maximum Reimbursement payable under this warranty will be zero.

In connection with any dispute under this Section, Owner shall have the burden of proof that the Product has been stored, handled, installed, finished, and maintained according to Collins Instructions. Notwithstanding anything to the contrary herein, as an express condition of this Warranty, prior to undertaking any repair or replacement of any affected Products and prior to exercising any rights set forth in Section 5, Owner must (i) notify Collins, in writing, within 60 days of first discovering the condition, at the address in Section 6 and provide annotated photographs, and (ii) allow Collins a reasonable period of time to inspect and/or investigate the condition of the Products in question. Subject to the foregoing, all claims under this Warranty must nonetheless be submitted to Collins in writing within 30 years and 60 days of the date of installation.

3. WARRANTY LIMITATIONS

ANY EXPRESS OR IMPLIED WARRANTIES ARE LIMITED TO THE DURATION OF THE LIMITED WARRANTY. SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. NO COLLINS RESELLER, AGENT, DISTRIBUTOR, SUPPLIER OR EMPLOYEE IS AUTHORIZED TO MAKE ANY MODIFICATION, EXTENSION OR ADDITION TO THIS WARRANTY.

This Warranty does not cover damage to Products due to: (i) misuse, abuse or improper transportation, storage, handling, installation, painting, refinishing, or maintenance; (ii) alterations to the structure after the original installation of Products; (iii) design, application, or construction of the structure on which Products are installed; (iv) failure to comply with applicable building codes and accepted building practices; (v) use or application of sawed or "ripped" TruWood siding as trim; (vi) prolonged contact with accumulated water due to wall, roof, door, window, deck or any other water infiltration leaks, ineffective vapor barriers or failure to maintain Products; (vii) performance of any field-applied finishes; (viii) mold, mildew or fungus; (ix) performance of Products installed on any structure located outside the United States of America; (x) acts of God, war, civil disorder, hurricane, tornado, hail, earthquake, flood, fire, lightning, mudslide, air pollution, severe weather or any other similar cause beyond the control of Collins, or (xi) any condition referenced in the Collins Instructions' "Installation Errors That Void the Warranty"; (xii) swelling and/or edge checking (such swelling and/or edge checking normally occurs in all wood products as they expand and contract in response to changes in climatic conditions); or (xiii) termite damage. This Warranty requires strict compliance with Collins Instructions. Collins is not responsible for any damages caused by any other party.

4. EXCLUSION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES

COLLINS IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY INCLUDING, WITHOUT LIMITATION, PROPERTY DAMAGE, LOST PROFITS, LOSS OF USE, OR OTHER ECONOMIC LOSS. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU.

5. State Law

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

6. Contact Us

To receive Product information bulletins and other information concerning the proper installation, use and/or maintenance of the Products, please contact Collins at **800.329.1219**. For inquiries regarding Warranty service, claims, or technical services, contact Collins at **800.417.3674**. To submit a claim, send written notice of such claim, including annotated photographs, by certified mail, to The Collins Companies, 1618 SW First Avenue, Suite 500, Portland, OR 97201-5706, addressed to the attention of "TruWood Warranty Service." For sales, contact Collins at www.CollinsWood.com.

CARE AND MAINTENANCE

GENERAL: The suggestions and recommendations below should be followed to achieve satisfactory performance of any CP Product. Failure to comply may result in a reduced useful life of the Product and void the Product warranty.

INSPECTION: The Product should be inspected periodically in accordance with the following maintenance items: (i) re-nail loose Product; (ii) trim trees and bushes that are in contact with the Product; (iii) replace caulking that has hardened, cracked and/or lost its seal; (iv) correct grade drainage where retained water is in contact with the Product; (v) eliminate overspray from lawn and landscaping sprinklers; (vi) check the condition of Coating as set forth below; (vii) follow any applicable paint manufacturer's repainting recommendations; and (viii) maintain gutters and downspouts. (See CP Instructions' "Key Homeowner Maintenance Responsibilities.")

REFINISHING: Exterior wall finishes weather most rapidly on those portions of the building that receive the greatest exposure to sun and moisture. Areas receiving maximum exposure may require refinishing as often as every 3 years. The frequency of refinish will depend on geographic locations; the type, quality and color of the paint; and on other factors such as the method of paint application and the number of coats. Repainting is dictated by the degree of wear or erosion of the old paint. Refinishing is typically required if the Product is discolored and blotchy; if the Coating is cracked, peeling or scaling; or if the Coating appears thin, porous and chalked to a point where it no longer protects or hides the surface. Severe paint cracking, flaking or peeling is not normal paint weathering. Such problems may be caused by inferior paints, incompatible paints, improper painting procedures or by improper construction that permits water or water vapor to reach, condense, or freeze on the back side of the Product. (See CP Instructions' "Painting".)

Frequent repainting can result in excessive total paint film thickness, which may cause problems such as cracking and pooling. On the other hand, unreasonable delays in maintenance repainting may contribute to deterioration of both the paint and Product such that refinishing cannot be accomplished effectively. In general, it is recommended that the total Coating film thickness be maintained at 4 dry mils. This typically is considered the equivalent of three coats of finish (one coat of primer plus two coats of finish paint).

SURFACE PREPARATION: The extent of surface preparation is dependent on the condition of the old finish. Loose paint material should be removed. The surface should be washed and all mildew must be removed before painting. Use of a power washer is not recommended. (See CP Instructions' "Key Homeowner Maintenance Responsibilities" and "Painting".)

REPRIMING: If the old surface is sound (no peeling, cracking, heavy caulking, etc.), repriming is typically not necessary unless it is recommended by the paint manufacturer for the top coat chosen. If the Product's base substrate and/or if the old primer is exposed, these areas should be reprimed. If the Product's edges or ends show any cracks or fissures, these should be resealed with a primer. (Only top quality exterior oil/alkyd type primers are recommended.) The primer used must be compatible with the chosen top coat and the primer manufacturer recommendations followed in all respects. (See CP Instructions' "Painting".)

SELECTING AND APPLYING TOP COAT PAINTS/STAINS: These recommendations deal with refinish over field-applied top coats. A good quality paint that is suitable for use on hardboard siding must be used. The finish chosen should be compatible with the existing old finish. Only good quality exterior acrylic latex paints are recommended when finish is applied to textured products. Satin or gloss oil/alkyd paints are also acceptable, as are opaque acrylic latex stains. The following top coats (paints/stains) are not recommended: shake and shingle paints, flat oil or alkyd paints and stains, vinyl acetate (PVA), vinyl/acrylic or vinyl/acetate/acrylic copolymer paints and stains, semi-transparent stains, clear coatings. The finish coat of paint or stain should be applied in strict accordance with the recommendations of the paint manufacturer. (See CP Instructions' "Painting".) Exception: for smooth TruWood products, use only high quality alkyd-based paint.

MILDEW: Mildew, mold and other fungus growths must be removed from the Product particularly before repainting the Product. This may be accomplished by scrubbing the infected surface thoroughly with mildew removal products or the following solution:

- 2/3 cup TSP (trisodium phosphate) – available in paint or hardware stores
- 1/3 cup detergent containing no ammonia (Tide or the equivalent)
- 1 quart 5% sodium hypochlorite (Clorox or the equivalent)
- 3 quarts warm water or enough to make one gallon

Protective hand and eyewear must be worn when applying any removal product or the solution. The Product should be scrubbed with a soft brush and then rinsed thoroughly with fresh water. Do not place or splash the solution on landscaping. Promptly after the Product has been cleaned and has dried, a mildew resistant paint should be applied.

Contact Us

To receive Warranty information, Product information bulletins and other information concerning the proper installation, use and/or maintenance of your Product, please contact CP at: **800.329.1219:** Warranty Inquiries and Claims/Technical Services/Marketing **800.417.3674:** Sales **www.CollinsWood.com**

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Member of
The Composite Panel Association