



ENGINEERED HARDWOOD INSTALLATION GUIDE

For Tongue & Groove (T&G) Flooring Products

IMPORTANT: READ BEFORE YOU BEGIN

Failure to follow these instructions may result in installation problems and will void the product warranty. It is the responsibility of the owner, purchaser, and installer to read, understand, and follow all requirements before beginning installation.

1. OVERVIEW

Congratulations on your engineered hardwood flooring project. This guide covers everything you need for a successful installation, including site preparation, subfloor requirements, step-by-step procedures for both glue-down and floating methods, care and maintenance, and warranty information.

Engineered hardwood is a beautiful, dimensionally stable flooring option that performs well in a wide range of environments. Proper planning and preparation are the foundation of a floor that looks beautiful and performs for decades.

Health & Safety

Cutting, sawing, sanding, and machining engineered hardwood creates airborne dust that can cause eye, nasal, respiratory, and skin irritation.

- Use dust collectors on all power tools.
- Wear a NIOSH-designated dust mask or respirator.
- Wear safety glasses and gloves.
- Avoid dust contact with eyes, nose, and skin.



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ASBESTOS & SILICA HAZARD

Existing resilient flooring, backing, lining felt, or adhesives may contain asbestos fibers and/or crystalline silica. DO NOT grind, chip, sand, drill, saw, or pulverize these materials. Inhalation is a known cancer and respiratory hazard. Unless certain the material is asbestos-free, assume it contains asbestos and contact a qualified professional.

Acclimation & Storage

- Acclimate for a minimum of 3 days in the room(s) where flooring will be installed.
- Keep boxes sealed in original packaging with straps intact.
- Store indoors on a flat, elevated surface at 60°F to 85°F (16°C to 29°C) and 35% to 50% relative humidity.
- Do not store outdoors or in an unheated environment.
- Protect from direct sunlight, excessive heat or cold, and high humidity.

MATERIALS

Allow 5–10% extra for cuts, waste, grading, and defects. For diagonal or specialty patterns, allow 10% additional.

Pre-Installation Checklist

1. Inspect every plank before installation. Confirm color, finish, milling, and grade. Once installed, boards are deemed accepted.
2. Verify environment: 60°F–85°F and 35%–50% relative humidity.
3. For new construction: all windows and doors installed, walls and subfloors completely dry. Flooring should be the last stage.
4. Verify subfloor is dry, sound, flat, and meets all requirements (see Section 3).
5. Read all product-specific documents including warranty terms.

IF THE PRODUCT IS NOT ACCEPTABLE, DO NOT INSTALL IT

Contact us immediately. The warranty does not cover materials with visible defects after installation. Engineered hardwood is manufactured with a tolerance of up to 5% for natural or manufacturing defects.

2. TOOLS & MATERIALS

Category	Items
Measuring & Layout	Tape measure, chalk-line, 10' straightedge, moisture meter
Cutting	Table saw, miter saw, jig saw, and/or circular saw, hand saw
Installation	Rubber mallet, pull bar, wooden shims (3/8"), tapping block



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Cleanup & Finish	Shop vacuum, broom & dustpan, soft cloths, adhesive cleaner
Safety	NIOSH dust mask/respirator, safety glasses, gloves
Materials	Wood putty, transition moldings, baseboards, quarter rounds

3. STEP-BY-STEP INSTALLATION

Step 1: Subfloor Preparation

A properly prepared subfloor is critical. Follow NWFA subfloor guidelines in addition to these requirements.

General Requirements

- Flatness: No more than 1/4" per 10 ft (6 mm per 3 m). Sand high spots, fill low areas with self-leveling compound.
- Cleanliness: Sweep or vacuum immediately before installation. For glue-down, subfloor must be free of oil, grease, paint, sealants.
- Smoothness: All nail and screw heads countersunk. Sand any protrusions.
- Structural integrity: Secure nails or screws every 12" along joists and 6" along bearing supports. Replace damaged sections.

Concrete Subfloors

Can be glued with minimum compressive strength of 3,000 psi. Do not install over sealed, painted, or burnished concrete—roughen by grinding or sanding. A vapor/moisture barrier is required for all on-grade or below-grade slab installations.

BASEMENT INSTALLATIONS

It is NOT recommended to install hardwood in basements. All basements should have an operational sump pump. If you proceed, a moisture barrier is mandatory.

Wood Panel Subfloors

- Plywood is the preferred subfloor material. Must be minimum CDX grade (Exposure 1).
- Recommended subfloor thickness: 3/4" (19 mm). Underlayment: 3/8" (10 mm).
- Install perpendicular to joists in staggered rows. Leave 1/8" gap between panel edges.
- For joist spacing exceeding 19.2" centers, minimum subfloor thickness of 1-1/4" (32 mm).

Existing Flooring Substrates

Over existing hardwood: install perpendicular to the old floor when possible. Sand/abrade for glue-down. If old planks are wider than 6", cover with minimum 3/8" underlayment regardless of direction.

Over tile, stone, or terrazzo: repair open grout joints and broken corners larger than 3/16". Clean and abrade surface. Test adhesive bond before full installation.



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Moisture Testing

Test Method	Standard	Maximum Threshold
Calcium Chloride	ASTM F-1869	3 lbs / 1,000 sq ft / 24 hrs
Relative Humidity Probe	ASTM F-2170	75% RH
Electronic Moisture Meter	Wood subfloor	Below 13% MC

The MC difference between subfloor and engineered hardwood must not exceed 4%.

Step 2: Installation Method Selection

Glue-Down Installation

Bonds flooring directly to the subfloor using an approved adhesive. Provides excellent stability for concrete and wood subfloors.

Approved Adhesives

Manufacturer	Approved Products
Roberts	R1509 Urethane
DriTac	7500 Eco-Urethane, Easy Spread 7400, 7700 4-in-1 Easy Clean
Bostik	Bostik Best
Taylor	MS PLUS Wood Flooring Adhesive
Mapei	Ultrabond 980 (residential), 990 (commercial), ECO 995

WARRANTY NOTE

Using any adhesive other than those listed above will void the product warranty. Always follow the adhesive manufacturer’s instructions.

Floating Installation

Planks lock together and “float” over an underpad. Faster installation, suitable for most subfloor types.

- Main floors and upper floors: Use a 2-in-1 or 3-in-1 acoustical foam pad (2–3 mm thick).
- Basements and slab-on-grade: Use a 3-in-1 pad that includes a moisture barrier.
- Condos: Confirm underpad acoustical requirements with your Condo Association.

Radiant Heat

- Confirm compatibility with your radiant heating system manufacturer.
- Surface temperature must never exceed 29°C (85°F).
- Temperature changes must be gradual. Rapid changes will damage flooring and finish.
- Relative humidity must be maintained between 40% and 55% year-round (note: different from standard range).



Step 3: Wall, Door & Transition Prep

- Remove all trim, baseboards, and quarter rounds. Label them for reinstallation.
- Notch door casings so flooring slides beneath—use a piece of scrap flooring as a height guide.
- Leave adequate expansion space for seasonal humidity changes.

Step 4: Install the Floor

Establish Your Starting Line

1. Measure plank width and add 3/8" (10 mm).
2. Mark the floor at each end of your starting wall, approximately 6" from corners.
3. Snap a chalk line between these points.
4. Verify approximately 3/8" gap between first row edge and wall.

Install First Rows

- Select the longest boards for the first two rows.
- Apply adhesive wide enough for the first two rows (glue-down method).
- Align the grooved edge along the chalk line, tongue facing the starter wall.
- Place 3/8" shims every 2–3" along the starting wall and at each row end.

Continue Installation

- Install left to right. Insert tongue into groove of next row, tap into place.
- Tape every 4–5 rows with painter's tape. Remove once adhesive is fully cured.
- Ensure full adhesive transfer—periodically remove a board to confirm contact.
- Work in sections of 5 complete rows at a time.
- Verify all joints are tight. Replace any boards not fitting correctly immediately.

ADHESIVE MANAGEMENT

If adhesive bleeds through joints, clean immediately with the manufacturer's recommended cleaner using clean soft rags. Replace cloths often. If adhesive skins over, remove and apply fresh—boards may not bond to dried adhesive.

Step 5: Finish Up

1. Remove all temporary shims.
2. Sweep and vacuum immediately.
3. Inspect entire floor for adhesive marks, bleed-through, or haze. Clean thoroughly.
4. Restrict traffic for 24 hours. Do not place furniture or heavy objects during this period.
5. When placing furniture, lift into position—never slide. Attach felt pads to all legs.



4. TIPS & WARNINGS

Humidity & Seasonal Considerations

Installation Type	Required Humidity Range
Standard installation	35%–50% RH (year-round)
Over radiant heat	40%–55% RH (year-round)

Balanced, consistently maintained humidity is essential. Use a humidifier, dehumidifier, and/or air conditioning as needed. Slight expansion in humid conditions and contraction in dry conditions are normal characteristics—not defects. The 3/8" perimeter expansion gap accommodates this movement.

WARRANTY WARNING

Failure to maintain required humidity will void the product warranty. It is the owner/purchaser/installer's responsibility to maintain humidity within the required range continuously throughout the entire year.

Multi-Day Installation Tips

- Apply adhesive only to the area covered by the last row. Mark with a chalk line.
- Ensure the last board is completely in contact with adhesive.
- Remove all excess adhesive on the slab/subfloor.
- Seal the adhesive container fully. Clean all tools thoroughly.

Transition Pieces

- Reducer: Transitions between different floor heights at doorways, fireplaces, etc.
- Stair Bullnose: Forms over stair step edges. Secure with adhesive and nails.
- T-Molding: Provides expansion space between different areas. Required for floating installations.

5. CARE & MAINTENANCE

Routine Cleaning

- Vacuum regularly with a hard-floor setting. Clean with a prefinished flooring cleaner and microfiber mop.
- Give extra attention to high-traffic areas and exterior entrances.
- NEVER use water, wet mops, or steam mops on engineered hardwood. Wipe up water immediately.
- Test any new cleaning product on a small, less visible area first.

Products to Avoid

- Products containing surfactants or that leave residue



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- Abrasive cleaners, ammonia-based products, wax-based polishes
- Acrylic finishes, acidic or vinegar-based solutions
- Oil soaps, detergents, chlorine-based products, bleach, solvents

Protecting Your Floor

- Use area rugs and door mats at all entrances. Don't leave rugs permanently in one spot.
- Keep pet nails trimmed. Clean pet accidents immediately.
- Clean spills immediately. Use a lightly dampened cloth with dish soap for small spills.
- Never roll or slide furniture. Lift into place. Use felt pads and barrel-type castors.
- High heels and hard-soled shoes can dent engineered hardwood.

Sun Exposure

Light and sunlight will naturally darken your floor over time, adding warmth to its color. Periodically move area rugs to avoid permanent color differences. Color change from light exposure is not a defect and is not covered under warranty.

6. WARRANTY & CONTACT INFORMATION

Warranty Coverage

This product carries a limited 25-year residential warranty and a limited 5-year light commercial warranty.

Reno Source Inc warrants that its products, in original manufactured condition, will be free from defects and dimensional inconsistency during the warranty period when installed and used under normal residential conditions in accordance with this guide. The factory finish will not wear through or separate from the flooring.

What Is Not Covered

- Changes to gloss levels or noises from floor/subfloor
- Floors without adequate humidity control year-round
- Color differences from display models, literature, or between boards
- Natural lightening or darkening from light exposure
- Products sold as-is, clearance, seconds, or non-standard grades
- Damage from heating systems, footwear, pets, furniture, or failure to follow care instructions
- Labor costs

Filing a Claim

1. Contact the original supplier where flooring was purchased.
2. If unresolved, submit your warranty claim in writing within the warranty period to Reno Source Inc.
3. Include: complete copy of original purchase receipt, installation documentation, and any requested information.



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