

ENGINEERED LEATHER FLOORING INSTALLATION GUIDELINES

IMPORTANT INFORMATION BEFORE YOU BEGIN

It is **EXTREMELY IMPORTANT** that you read and understand this information completely prior to starting, since improper installation can void the warranties.

INSTALLER/OWNER RESPONSIBILITY

Carefully inspect ALL material prior to installation for defects. Materials installed with visible defects are not covered under warranty. Remember –leather is a natural product that can vary in color, grain, and contains natural characteristics that varies from plank to plank and is to be expected. We do not warrant against these natural variations from plank to plank or variations from sample to plank. Remember – If you are not satisfied with the flooring prior to installation **DO NOT INSTALL** the flooring. Accepting or rejecting the material must be done on full shipment of quantities only, not carton by carton or plank by plank.

- We urge you, as the final inspector to inspect for proper color, finish, style, and quality **PRIOR** to installation. Verify that the flooring is the correct material. Care should be taken at this time to remove or repair particular characteristics you do not desire. Manufacturer declines responsibility for any costs incurred when plank(s) with visible defects have been installed.
- The use of stain, filler, or putty stick for the correction of minor defects during installation should be accepted as normal procedure.
- 5% cutting allowance, depending on layout, must be added to the actual square footage amount needed. (Diagonal, herringbone, or bordered installations will require a higher percentage)

TOOLS AND EQUIPMENT NEEDED:

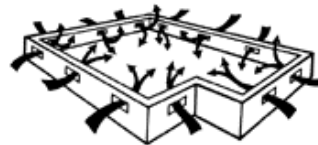
Broom or vacuum
 Moisture Meter
 Safety Glasses
 Tape Measure
 Hand Saw
 Color leather Filler
 Chalk Line & Chalk
 Electric Miter Saw/Table Saw
 Hammer
 Pry Bar
 Clean Green™ Leather Floor Cleaner/ EcoDomo R2X
 NIOSH designated Dust Mask

CAUTION: WOOD DUST

The International Agency for Research on Cancer has classified wood dust as a nasal carcinogen. The sawing, sanding, and/ or machining of wood products can produce wood dust that can cause respiratory, eye, and skin irritations. Equipment should be equipped with a dust collector to reduce airborne wood dust. Wear an appropriate NIOSH designated dust mask to reduce exposure to airborne wood dust. Avoid contact with eyes and skin. In case of irritation, flush eyes or skin with water for at least 15 minutes. In cases of severe irritation; seek immediate medical attention.

Attention California Installers & Consumers - WARNING
 Installation of this product and wood product may create wood dust, which is known to the State of California to cause cancer.

- Subfloors must be clean and free of dirt, curing compounds, sealers, drywall mud, paint, wax, grease, urethane, or other materials that may affect the integrity of the flooring material or adhesives used to install the flooring.
- All subfloors and subfloor systems must be structurally sound and must be installed following their manufacturer’s recommendations. Local building codes may only establish minimum requirements of the flooring system and may not provide adequate rigidity and support for proper installation and performance of a leather floor. **Whenever possible install the planks perpendicular to the floor joists for maximum stability. Our warranties DO NOT cover any problems caused by inadequate substructures or improper installation of said substructures.**
- Test wood sub floors and leather flooring for moisture content using a pin--type moisture meter. Take readings of the subfloor – minimum of 20 readings per 1000 sq. ft. and average the results. In most regions, a “dry” subfloor that is ready to work on has a moisture content of 12% or less and the leather should be within 4% of the subfloor moisture content.
- The moisture content for concrete subfloors registered after a calcium chloride test should not be greater than 3 pounds per 1000 square feet of area. If it exceeds these limits, **DO NOT** install the flooring. Before moisture testing begins, the slab must be cured for a minimum of 30 days.
- Basements and crawl spaces must be dry. Use of a 6mil black polyethylene is required to cover 100% of the crawl space earth. Crawl space clearance from ground to underside of joist to be no less than 18”.



PRE INSTALLATION & JOBSITE CONDITIONS

It is the installer/ owners’ responsibility to ensure that the jobsite conditions and jobsite subfloor are environmentally and structurally sound. The subfloor must be flat, meeting a minimum of 3/16” within 10’ or 1/8” in 6’.

Concrete subfloors -- Grind high spots or use a Portland--cement-- based leveling material (minimum compressive strength 3000 psi) to fill all low spots. Follow the leveling compound manufacturer’s instruction. Leveling compounds must be allowed to thoroughly cure and dry prior to installation of leather flooring.

Wood subfloors -- For staple down application use layers of 15lb. felt or wooden shims to fill low spots. Staples must be able to penetrate for holding power.

- All “wet” work – i.e. – paint, drywall, concrete, masonry, plumbing must be complete and dry well in advance of delivery of leather flooring
- Flooring should not be exposed to extremes of humidity or moisture.
- Permanent HVAC should always be on and operational a minimum of 5 days and maintained between 65 – 75 degrees and a relative humidity of 35%-- 55% .

It is the Installer/Owner responsibility to ensure that the conditions are acceptable prior to the installation of the leather floors. The manufacturer declines all problems with the leather flooring that are related to or attributed to improper jobsite conditions.

RECOMMENDED SUBFLOOR SURFACES

Concrete Subfloor Guidelines

Concrete slabs should be of high compressive strength and constructed to prevent groundwater from permeating the concrete. Engineered leather flooring can be installed on, above, or below-grade. In addition, it can be installed over above-ground, suspended concrete floors. The suspended concrete must be a minimum of 1 1/2 inches thick and must be structurally sound. The exception to this is lightweight concrete (which usually contains high amounts of gypsum) having a density of 100 pounds or less per cubic foot. Test for lightweight concrete by using a nail to scratch the surface of the concrete. If the concrete crumbles or turns to powder, it is not sound, and you should NOT install the leather flooring.

Wood Subfloors Guidelines

Subfloor panels should conform to U.S. Voluntary Product Standard PS1-07, Construction and Industrial Plywood and/or US Voluntary PS 2-04 and/or Canadian performance standard CAN/CSA 0325.0-92 Construction Sheathing. Other CSA standards also apply.

Acceptable Panel Subfloors: Truss/joist spacing will determine the minimum acceptable thickness of the panel subflooring.

- On truss/joist spacing of 16" o/c or less the industry standard for single panel subflooring is minimum 5/8" 19/32", 15.1 mm) CD Exposure 1 subfloor panels, 4x8 sheets.
- On truss/joist spacing of more than 16", up to 19.2" (488mm) o/c, the standard is nominal 1" (23/32", 18.3 mm) T&G CD Exposure 1 Plywood subfloor panels, (Exposure 1) or nominal 1" 23/32", (18.3mm) OSB Exposure 1 subfloor panels, 4'x8' sheets, glued and mechanically fastened.
- Truss/joist systems spaced over more than 19.2" (488mm) o/c up to a maximum of 24" (610mm) require minimum 7/8" T&G CD Exposure 1 Plywood subfloor panels, (Exposure 1), or minimum 7/8" OSB Exposure 1 subfloor panels, 4'x8' sheets glued and mechanically fastened – or two layers of subflooring or brace between the truss/joist in accordance with the truss/joist manufacturer's recommendations and with local building codes. Some truss/joist systems cannot be cross-braced and still maintain stability.
- For existing leather floors install new flooring at right angles to the existing flooring.
- Do not glue, staple, or nail down leather flooring over particle board.
- Do not install over existing glue down leather floors.

CAUTION: WOOD DUST

WARNING! DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEAD BLAST OR MECHANICALLY CHIP OR PULVERIZE EXISTING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC "CUTBACK" ADHESIVES OR OTHER ADHESIVES.

These products may contain either asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a nonasbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material.

See current edition of the Resilient Floor Covering Institute (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for detailed information and instructions on removing all resilient covering structures. For current information go to www.rfci.com

Ceramic tile and terrazzo: All wax and sealers must be removed with an appropriate cleaner/stripper. Ceramic tile and terrazzo should be abraded to allow for proper adhesion. Check for loose tiles by tapping and re-adhere. Fill grout lines with a cementitious latex fortified leveling compound.

Glue Down Only – Do not install over more than one layer that exceeds 1/8" in thickness. Clean flooring with an appropriate cleaner and allow to thoroughly dry. If necessary degloss the floor using an abrasive pad to enhance the bonding of the adhesive, if wax or other coatings are present, completely remove the material with a quality stripper, rinse the floor and allow to dry. Always check for proper adhesion bond prior to installing.

CAUTION: DO NOT SAND any existing resilient tile, sheet vinyl flooring, or flooring felt as they may contain asbestos fibers that are not readily identifiable. Inhalation of asbestos dust can cause serious bodily harm. Check local, state, and federal laws for handling hazardous material before attempting the removal of these floors.

Acoustic Cork Underlayment: (Glue Down Only) – Install the cork underlayment according to the manufacturer's instructions. The cork underlayment must be fully adhered to the subfloor. The cork underlayment should be of pure granulated cork combined with a polyurethane binder with a minimum density of 11.4 lbs. per cubic foot and not to exceed 13 lbs. per cubic foot.

PRE INSTALLATION/ JOB PREPARATION

Inspect the Flooring – Inspect material for color, finish, milling, and grade. Hold out pieces that may not be acceptable once installed.

PLEASE NOTE: We do not accept responsibility for any costs incurred when plank(s) with visible defects have been permanently installed.

Undercut Door Casings - Undercut all door casings 1/16" higher than the thickness of the flooring being installed. To do this, use a scrap piece of flooring as a guide. Lay it on the substrate and cut the casing with a handsaw or use a power jamb saw set at the correct height.

Blending of Cartons- To achieve a uniform appearance across the entire floor, we highly recommend that you open and work from several cartons at a time and dry-lay the flooring, mixing the planks from several cartons. This will allow you to blend the planks for maximum aesthetic appearance. Make certain the room is well lit to ensure color is consistent and that any visual defects can be seen and removed.

Expansion space: Expansion space around the perimeter is required and should be equal to the thickness of the flooring material. For commercial installations use a minimum of 1/2" expansion.

GLUE DOWN INSTALLATION GUIDELINES

Additional tools & material needed:

- Bostik Best Adhesive
- Clean White Rags
- Mineral Spirits/ Urethane Adhesive Remover Adhesive Trowel
- Straight Edge

NOTE: REFER TO THE ADHESIVE LABEL FOR PROPER TROWEL REQUIRED, SPREAD RATES AND INSTALLATION APPLICATION INFORMATION!

!" Engineered Leather Flooring is an ADHERED (glue- down) ONLY product. It is NOT RECOMMENDED for use in nail, (staple down), or floating installations; or for installations over radiant-heated sub floor systems of any type. Using standard (water based) adhesives; some ends swell of planks can be expected. To avoid plank end swell, a urethane adhesive such as Bostik Best is recommended. USE a 1/8"x1/8"x1/8" sq. notch trowel only.

Before you begin using the following instructions, please refer to the Pre-Installation Job Prep information above.

NOTE: Proper alignment is critical. Misaligned starter rows can cause side and end gaps to appear in proceeding rows of flooring. When you have the starter rows complete, you can begin the next row. When you are certain the first two starter rows are straight and secure, spread adhesive 2 to 3 feet wide across the length of the room.

GETTING STARTED

1. Select a starter wall. An outside wall is best: it's most likely to be straight and square with the room. Measure out from this wall, at each end, the width of two planks including the tongue plus the space needed (3/8" or "") for expansion.
2. Snap a chalk line from these points, parallel to that wall.
3. Prior to installing the flooring, secure a straight edge inside the chalk line to act as a guide and to prevent the row of planks from shifting during installation. The straightedge could be a straight piece of lumber or piece of flooring. Alternatively, the first row can be face-nailed with finishing nails into the wood subfloor or sprig nailed into a concrete subfloor.
4. Continue to install planks and push them into place. Place the tongue of the board into the grooves of installed boards and press into the adhesive. As you continue working across the floor try to maintain a six-inch minimum space between end joints. Randomly install different lengths to avoid a patterned appearance.

NOTE: Never strike a rubber mallet or hammer directly on the flooring to engage the tongue-and-groove. This practice can damage the flooring.

5. Remove the adhesive from the surface of the installed flooring as you work – this will help to save time. A damp rag with water will remove adhesive. Frequently change towels to avoid leaving a haze on the flooring surface.
6. As you approach the end wall it may be necessary to cut the width of the last row – be sure to allow for the expansion space along the end wall. Once the final cuts are made set planks into place.
7. After the floor is complete, remove the straight edge and glue down the first two boards.
8. Restrict foot traffic for a minimum of 6-8 hours and wait 24 hours before permitting moving of furniture onto the floor.
9. Clean any wet adhesive from the flooring with a lightly dampened clean cloth.
10. Roll and cross roll floor with a 100-150 lbs (45-70 kg) roller at the end of the installation to ensure proper transfer of adhesive.

SPREADING THE ADHESIVE

Using the proper trowel, hold the trowel at a 45° angle to ensure proper spread rate of adhesive. Apply pressure to allow the trowel to leave ridges of adhesive on the substrate with little adhesive left between the ridges. This will help to achieve the proper spread rate of the adhesive. Temperature and air flow across the adhesive can influence the open time of the adhesive. 3X (or urethanes) will have a longer open time in areas of low humidity and will have a shorter open time in areas of high humidity. (See Adhesive label for further information).

Final Inspection: After the floor has been cleaned, inspect the floor for nicks, scratches, gaps, or planks that may have moved during installation, as well as any other imperfections that need attention. Touch up nicks and scratches with touch-up products. In typical climates, the new floor can accept foot traffic within 24 hours. In areas where additional curing time is required, more time may be needed.

AFTER INSTALLATION & SEASONAL OPERATION

- **48 hours after** completion of installation, slowly raise temperature of the heating system to its preferred operating level over a period of 5 days. Do not allow the surface temperature to exceed 80°
- Humidity level must be maintained between 35%-55% R. H.
- Seasonal gapping should be expected.
- Surface checking can be expected if the proper humidity level is not properly maintained between 35-55% R. H. or if the floor's surface temperature exceeds 80°.

COMPLETING THE JOB - ALL INSTALLATIONS

- **Sweep or vacuum** floor
- Clean the floor with pH neutral Bona floor cleaners
- Install transition pieces -i.e. – thresholds, t-moldings, base boards, and quarter round. Nail moldings to wall, not the floor.
- Inspect final floor for nicks and or minor gaps – fill with appropriate color wood putty.
- Unused material should be left with owner and stored in a dry place in case of future repairs are needed.
- Use plywood or hardboard when moving heavy appliances or furniture **across floor**.

FLOOR PROTECTION DURING CONSTRUCTION

After installation, if you choose to protectively cover the floor, cover the floor completely, since some species are light-sensitive and uncovered areas may change color. Use a covering material with a vapor permeance (perm rating) of 1 perm or more (tested in accordance with ASTM E-96) to avoid trapping moisture/vapor on or within the floor. Any covering should be taped, using a low-adhesion tape, to base or shoe moldings. Avoid taping to finished flooring. When taping paper or sheets together, tape them to each other, not to the floor.

MOLDINGS HELP YOU MAKE EASY TRANSITIONS

T-Moldings: Used to create a transition between floor coverings of similar heights or to cover an expansion gap.

Stair Nosing: Used in conjunction with flooring installed on steps or provide a finished edge. Secure by gluing and nailing/ screwing down into place. Pre-drill holes to avoid splitting.

Reducer Strips: Used to transition floor coverings of differing heights- leather floor to vinyl, vinyl composition tile, or low-pile carpet. Can also be used to border a fireplace.

Thresholds: Used to transition floor coverings or to create a break between floor coverings –leather to carpet, can be used as a trim molding around fireplaces or sliding glass doors.

Shoe Base Moldings: Used to cover the expansion space between the floor and vertical surfaces. Can be used as a substitute for Quarter Round moldings when space is a limitation.

Quarter Round Moldings: Used to cover the expansion space between the Wall Base and your leather floor. You can also use them to make smooth transitions between the floor and cabinetry.

Wall Base Moldings: Can be stained and finished to the color of the flooring to be used an alternative to painted baseboards.

FLOOR CARE AND MAINTENANCE

Remember, like any floor covering, our factory finished leather floors will show signs of wear over time, depending on the size and lifestyle of your family. By observing a few precautions and setting up a regular cleaning routine and maintenance program, you can expect years of beauty from your floor. The following are examples of the reasonable and necessary maintenance you are expected to perform. They are not intended to be an exclusive list.

1. Sweep or vacuum regularly since built-up grit can damage the surface of the leather. The vacuum head must be a brush or felt type. Be certain the wheels of the vacuum are clean and do not damage the finish. Do not use a vacuum with a beater bar head.
2. Remove spills promptly using a soft cloth and Bona cleaning products.
3. Never wet-mop, damp-mop, or clean your floor with water or other products. This can severely damage the flooring and will void the warranties.
4. Important: Do not use oil soaps, liquid or paste wax products or other household cleaners that contain citrus oils, lemon oil, tung oil, silicon, or ammonia since these warranties do not cover damage caused by non-recommended products. Use of these and other such products will harm the long-term performance of your floor.
5. Do not use 2 in 1 cleaner with polish that may contain acrylics or urethane polish to restore gloss – the use of these products will void the finish warranty and may produce unsatisfactory results when not applied properly.
6. Keep pets' nails trimmed, and paws clean and free of dirt, gravel, grease, oil, and stains.
7. Place protective felt pads beneath furniture legs and feet to reduce scratches and dents. Replace pads as needed.
8. Use a dolly and protective sheets of plywood when moving heavy objects, furniture, or appliances.
9. Make certain furniture casters are clean and operate properly (a minimum 1" wide vinyl surface where it meets leather is recommended). Clean wheels periodically to remove dirt and debris.
10. Remove shoes with spiked or damaged heels before walking on floor.
11. We recommend using an area rug in high traffic areas and pivot points (e.g., stair landings, room entries, etc.), especially if you have a large family or indoor pets.
12. Maintain the proper Relative Humidity in your home between 35% - 55%. The use of a humidifier during heating seasons may help reduce shrinkage of the leather due to low humidity.



Questions or Comments?

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