

## Bildermann's Flooring Installation Instructions

Congratulations on choosing Bildermann's flooring. Please take time to read the following procedures before you begin installation. With the correct installation of this flooring, following the precautions in this guide, this natural product will give you many years of satisfaction. Bildermann's flooring is manufactured to standards that permit a variance in thickness, width, and length of no more than 0.25mm (that is less than 0.01 inch). While quality control procedures at the factory ensure that very few defective boards are delivered to the customer, the owner/installer of this flooring is responsible for the inspection of flooring planks prior to installation. Claims cannot be made for defective boards after they have been installed.

Bildermann's recommends that our flooring be installed by a licensed hardwood flooring contractor who practices the flooring installation guidelines set forth by the National Hardwood Flooring Association (NWFA) and has at least 3 years experience with wood floor installations. The best application for installing our flooring is by nailing to a plywood sub floor using only an 18 gauge cleat, or gluing down via the trowel down method. Gluing to a concrete sub floor should only be done when moisture levels are appropriate and properly tested by an installer familiar with glue down applications, and an adhesive with moisture barrier is used.

Please note that the use of paint thinner, mineral spirits, turpentine and certain abrasive chemicals may irreparably damage the finish. Ensure to test all cleaning agents on a sacrificial plank prior to use.

The only tape approved for use on our finish (moldings and flooring) is 3M/Scotchguard #2080 tape. Do not use any other tape; they may cause finish to peel. Do not leave any tape on any finish surface for more than 6 hours or it may damage the finish.

**It is the end-user's responsibility to maintain appropriate humidity levels between 40%-60%** via the use of a humidifier and/or de-humidifier to avoid separation and/or damage to the flooring planks.

**ACCLIMATION.** The flooring cartons must be cut down one entire length including the inside plastic, as well as on the ends, and must be acclimated to room temperature for at least 5 full days prior to the start of installation, stacked via a cross stack method if possible. Do not acclimate on top of moisture emitting surfaces such as concrete or above crawl spaces unless you lay down a thick plastic barrier beforehand.

In areas of drastic climate variation or high humidity, acclimation for 14 days is recommended. It is very important to maintain expected normal room temperature and humidity before and after the installation. Bildermann's flooring should NOT be installed on a plywood sub floor whose moisture content reading exceeds 12%. Also, it should NOT be installed on a cement sub floor where the moisture reading between the sub floor and the wood is greater than 4%.

For proper installation and cohesion with the sub-floor, flooring should be acclimated in the same room in which it will be installed. Using an accurate commercial moisture meter, be sure the moisture content of the room meets the tests described below. Room temperature and humidity of installation area should be consistent with normal, year-round living conditions for at least a week before installation.

**Important Note About Crawl Spaces:** Many wood floors fail due to the failure of the installer to address moisture in crawl spaces. If you have a crawl space under your home or new flooring, you must properly remedy this moisture.

- The crawl space must have a mechanical venting system
- You must have a high quality vapor barrier or moisture insulation (with 100% blockage) or the moisture coming up from the crawl space will damage the flooring. A ground layer cover of 6 to 20 millimeter polyethylene film (black) is vital with joints overlapping at least 6 inches, and sealed with moisture-resistant tape. There must be a minimum of 18" from the ground to underside of joists and it should have perimeter venting equal to at least 1.5% of the crawl space total square footage. The vents should be properly placed for cross-ventilation.

### ACCEPTABLE SUBFLOOR TYPES

FOR SOLID TONGUE AND GROOVE FLOORS			
FLOOR PLACEMENT	NAIL	GLUE	FLOAT
ABOVE GRADE	yes	yes	max runs apply
ON GRADE	yes	yes	max runs apply
BELOW GRADE	no	yes	max runs apply
<b>SUBFLOOR TYPES</b>			

CONCRETE	no	yes	yes
GYPCRETE	no	must apply liquid hardener first	yes
OSB 3/4" min (floor joist 16" oc)	no	yes	yes
Advantech OSB	yes	yes	yes
PLYWOOD 5/8" min (floor joist 16" oc)	yes	yes	yes
PARTICLE BOARD	no	no	yes
ASPHALT TILE	no	no	yes
FIRM LINOLEUM	if over plywood	no	yes
FIRM KITCHEN VINYL	if over plywood	no	yes
VCT VINYL TILES	no	no	yes
STEEL	no	yes	yes
CERAMIC/ MARBLE	no	may need to be scuffed first	yes
CUSHION VINYL	no	no	no
RUBBER TILES	no	no	no

FOR ENGINEERED FLOATING FLOORS	
FLOOR PLACEMENTS	FLOAT
ABOVE GRADE	yes
ON GRADE	yes
BELOW GRADE	yes
<b>SUBFLOOR TYPES</b>	
Engineered floating floors can be floated over all types of subfloors, as long as the subfloor is level and a 3 in 1 underlayment is used	

Note about gluing down to existing wood floors and other sub-floors listed above: The installer must first verify if the adhesive being used will bond to the existing sub-floor. If the installer is not sure, it is their responsibility to sand or score the existing sub-floor sufficiently prior to glue down to ensure that the bond will hold.

Note about Luan/Luan/Luaun: Our recommendation is always to remove it before installing a new floor. While most urethane adhesives bond to Luan plywood, it is generally considered an unstable substrate for tile or hardwood flooring. It has been known to hold nails/cleats poorly so it may contribute to squeaking or "bouncing" in the case of nail-down installations.

**PRODUCT INSPECTION.** All flooring boxes must be inspected for damage and defects upon delivery. A written damage report (email is acceptable), along with digital photos of the damage or defects must be submitted to Bildermann's within 30 days of delivery. It is the responsibility of the end-consumer/owner to report damages or defective product and to ensure that the correct product was received before installation begins. Bildermann's will not be responsible for any costs related to the installation of incorrect or damaged/defective product.

**COLOR VARIATION.** Please remember that wood is a natural product. As with all natural products there will be color variations between each piece. End-consumers and their Installers should identify the color variations and lay out the design of the flooring according to the customers design tastes. It is the installer's responsibility to work out of multiple boxes of flooring at the same time to ensure that color variation is distributed randomly over the entire floor.

**ENVIRONMENT.** Bildermann's flooring should be stored in a dry environment prior to installation. In new construction, all wet work should be completed prior to the installation of Bildermann's flooring.

**MOLDINGS INSTALLATION.** Strand bamboo and eucalyptus moldings can be installed using a 23 gauge micro pin nailer, otherwise you may have to pre-drill to avoid splitting. Always ensure to use an adhesive that is not water or latex based when gluing moldings and stair pieces down. Using an adhesive that releases moisture will damage the moldings and cause splitting, cracking and possibly warping. We recommend that you use the same adhesive to glue the moldings as was used to glue down your flooring. Once a transition molding is glued down, place a heavy object on top of the molding for a period of at least 8 hours to ensure a cohesive bond. The only tape approved for use on moldings is 3M/Scotchguard #2080 tape. Do not use any other tape. Other tapes (including blue painter's tape) may cause finish to peel. Regardless of which tape you use, do not leave the tape on any finish surface for more than 12 hours or it will damage the finish.

**WARNING.** Our flooring will require, just as any other solid hardwood floor does, a dry and stable sub floor. To optimize the life and stability of your Bildermann's floor, installation guidelines set forth by the National Wood Flooring Association for Solid Parquet flooring should be followed. Your installer should treat the installation of a Bildermann's floor the same as a solid hardwood floor, not as an engineered floor.

**MOISTURE TEST.** Before installing flooring over a wooden sub-floor, check the sub-floor for moisture using an accurate commercial moisture meter. The moisture difference between the sub-floor and the flooring must be not greater than four (4) percent. The moisture content of the sub-floor itself must not exceed 12 percent.

#### **SUBFLOOR PREPARATION**

1. Must be thoroughly swept and free of all debris, wax, oil, paint, curing agents and other contaminants that would interfere with adhesive bond.
2. Must be level - flat to 3/16" per 10-foot radius
3. Must be dry - subfloor must remain dry year-round. The moisture content of a wood subfloor must not exceed 12%. Concrete moisture content must not exceed 3 lbs per square foot, or the acceptable limit of the adhesive used to glue down the floor.
4. Wood subfloors must be structurally sound, dry and well secured. For nail-down installations, nail or screw every 6" along joists to avoid squeaking. If the subfloor is not level, sand down high spots and fill low spots with an underlayment patch or self-leveler such as Bostik Duralevel 83P Self-Leveling Underlayment.
5. Bamboo flooring is subject to damage when in direct contact with a constantly wet slab. The floor must be isolated from this type of slab by use of a concrete sealant, reverse vinyl or sleeper subfloor, an underlayment with moisture barrier or a compatible adhesive with moisture barrier. Concrete must be fully cured, at least for 60 days. If it is not level, grind down high spots and fill low spots with leveling compound. The concrete must be flat to 3/16" per 10-foot radius. DO NOT install on concrete unless you are sure it stays dry year-round. All concrete must be tested for moisture, or a moisture barrier adhesive must be used. It is the responsibility of the installer to ensure that the moisture capacity of the adhesive is sufficient for the concrete slab. Concrete subfloors must have all cracks and holes filled with a cement-like patching material and it is the responsibility of the installer to ensure that the adhesive being used will bond with any patching materials.
6. For all types of installation, joints should be staggered 10" to 20". Laying the flooring across the floor joists is recommended.
7. In a glue-down installation, the use of a self-leveling product is acceptable as long as it is compatible with the underlying adhesive.
8. Please note that 15lb felt paper and red rosin paper are considered moisture barriers.

#### **INSTALLATION OF OUR ENGINEERED CLICK LOCK FLOORING**

**IMPORTANT:** The maximum successive "run" of flooring allowed for our floating engineered floors is 25 feet across the widths of the planks (tangentially) and 45 feet down the lengths of the planks (longitudinally). They should not be installed under kitchen cabinets. Ensure to leave at least 1/4" to 1/2" expansion gap around the perimeter of the floor and at all door frames.

**VENTILATION.** Adequate air circulation is important to prevent moisture from accumulating. Crawl spaces should be ventilated year round. Be sure that there is no standing water or moisture at the soil moisture level.

Installation on sub-floors: sub-floors must be structurally sound and must be constructed on- or above-grade. flooring can be installed over sub-floors made of wood; sheathing grade; vinyl tile; plywood (3/4 inch)(19mm).

For adhesive installation: Use only 100% urethane-based adhesive. Do not use water-based adhesives. It is recommended that you consult a professional for adhesive installation.

Detailed preparation and installation procedures are outlined in the National Wood Flooring Association's Hardwood Flooring Manual (NWFA).

1. It is recommended that the industry standard of 10% be added to the actual footage of required flooring material as an allowance for cutting and waste during installation.
2. A sharp fine-tooth (finishing) circular/miter saw blade is recommended for cutting. Tape the area to be cut for a clean cut.
3. When allowing flooring to acclimate before installation, turn the air conditioning or heat to the level it will be in normal living conditions.

4. Nails and staples are best placed at least three inches from the edge of the boards. For wood sub-floors, nail every 6-8 inches.
5. It is recommended that door casings be cut at the bottom so flooring fits under rather than trying to scribe the flooring to fit around.
6. Leave 1/4 inch – 1/2 inch (6mm – 12mm) space at each wall for expansion of flooring. The expansion gap can be covered with the base molding.
7. Always use a tapping block and never hit flooring directly to avoid fracturing the flooring edge. A piece of flooring trim makes a good tapping block.
8. Take care of moisture problems or potential problems before installation. Special precautions should be taken below grade. If your flooring installation is hampered by a moisture problem, contact a professional installer to improve the situation.
9. To avoid a pattern of end joints, cut the initial boards in each row at varying lengths so that all the board ends are staggered throughout the installation. Ensure that the joints are at least six inches apart.
10. Before installing, lay out the flooring in a rough fashion according to how you would like it to appear. Arrange the natural range of color in a manner that is pleasing to your eye. Remember, like other natural products, color variation is to be expected in wood flooring.
11. Bent or bowed boards are not defective. These boards may be a little harder to install, but they will lie flat after installation.
12. Use pull straps at three-foot intervals to hold the boards firmly together.
13. For adhesive installation, use a 100% urethane-based adhesive.

Keep the wood floor clean, and use a soft damp cloth to scrub the floor gently. Sweep and/or vacuum on a regular basis.

Avoid large amounts of water. Should a spill occur, remove it quickly with a dry cloth or very slightly damp mop.

Do not use cleaning products that will leave a contaminating residue on the floor. Do not use oils, soaps, or wax products to clean your wood floor or ensure to test them on an out-of-the-way area first.

Make use of doormats at entrances to prevent dust and sand from being carried in. Clean the doormat regularly. Ensure to use chair mats under rolling office chairs.

If using area rugs in the house, make sure to move them periodically, to ensure the UV rays don't unevenly fade or change the color of the wood flooring.

Protect the floor from furniture legs and do not walk on the floor with hard soled or high heeled shoes.

Keep your pet's nails clipped to reduce scratching of the floor.

Depending on the amount of traffic, varnish your wood floor every few years to keep the high gloss finish.

Keep indoor temperature and humidity reasonably consistent.

Avoid long periods of direct sunlight.

## **INSTALLING OVER RADIANT HEAT**

All solid strand woven floors installed over radiant heat systems must be glued down and all engineered floating floors must have a valid 3 in 1 radiant safe underlayment underneath. The adhesive must be compatible with radiant heating and must contain a moisture barrier.

Note: If you are installing over a radiant pad we recommend the user of a well-bonded thin set mortar, which you can then glue our floor down to using one of our approved adhesives. Modified, non-modified, quickset/fast drying: all of these thin set mortars are suitable; just make sure they're very well bonded. Also be sure to follow the acclimation and pre-installation guidelines below.

#### PRIOR TO INSTALLATION – RADIANT HEAT SUBFLOORS

1. 6 days prior to installation, the temperature of the radiant heat system should be set close to or at its maximum temperature and kept hot for 72 hours. This is very important because it allows enough time for any remaining moisture to evaporate from the system, attaining its final moisture content.
2. At least 72 hours before installation, the heating system must be reduced to a suitable temperature of at least 65° Fahrenheit. If the temperature of the surface slab is below 65° Fahrenheit, the adhesive bond will be affected when the floor is installed by glue-down method.

#### DURING INSTALLATION

1. Make sure to leave 1/4" - 1/2" of expansion space between the flooring and the walls.
2. The temperature of slab should always be maintained at a minimum of 65° Fahrenheit.
3. A stove or any other item that can affect the temperature of the ground should not be used at the job site.
4. The flooring must be acclimated over the radiant heat with the system turned on. The same acclimation preparation must be followed as always, including cutting the boxes open and stacking them as prescribed in the Acclimation section of this document.
5. If the radiant heat system is encased in concrete or another substrate that releases moisture, a 6mm polyethylene barrier must be placed between the flooring boxes and the substrate so that the flooring does not absorb moisture during acclimation

#### AFTER INSTALLATION / MAINTENANCE

1. During the first three days after installation, the concrete slab temperature should be maintained at a minimum of 65° Fahrenheit. After that, the temperature can be set warmer, by 1.5° Fahrenheit each day, with a maximum temperature of 85° Fahrenheit. The temperature of the sub-floor must never exceed 85° Fahrenheit and the radiant heat system liquid must not reach more than 112° Fahrenheit during the life of your floor.
2. When turning off the radiant heat system, it must cool by a temperature of 1.5° Fahrenheit per day. Never turn your radiant system off suddenly.
3. The radiant heat system cannot fluctuate in temperature rapidly. Room temperature should vary no more than +/-7 degrees Fahrenheit year round.
4. Slight changing of color is expected for bamboo flooring installed over radiant heating systems