

BuildStarr

Engineered Wood Flooring Installation Guidelines

IMPORTANT PRE-INSTALLATION NOTES

Note: Flooring not used for its intended purpose will not be covered under warranty. The following information provided by BuildStarr is intended to serve as a reference guide only. Please carefully read BuildStarr's installation, and warranty documentation prior to installation. Follow the National Wood Flooring Association (NWFA) Installation Guidelines when installing your floor.

- Determine the best installation method that suits your application. BuildStarr floors may be Floated (not secured to the subfloor), Glued, or Nailed. Follow the instructions designated for the most suitable installation method for your project.
- Upon ordering of wood floor material consider adding an additional 8% to allow for cutting waste (5%) and grading allowance (3%).
- BuildStarr flooring is manufactured in accordance with accepted industry standards, which permit manufacturing, grading and natural deficiencies not to exceed 5%. If more than 5% of the material is unusable, do not install the flooring. Immediately contact BuildStarr from which the flooring was purchased. No claim will be accepted for materials with visible defects once they are installed. Installation of any material serves as acceptance of the material delivered.
- Installer/Owner assumes all responsibility to inspect all flooring before installation. Boards deemed unacceptable in appearance can be placed in closets, near walls or simply not be used. Pieces with glaring defects that can be seen from a standing position should be cut off or not be used as use constitutes acceptance. The use of putty, filler sticks or markers to touch-up flooring during installation is considered normal practice.
- Because wood is a natural product, natural variations in color may occur within and between individual flooring planks. To visualize the range of colors within the flooring style you are considering, compare your samples to the photos on our web site. During installation, work from several cartons at a time to achieve a uniform appearance across the entire floor. Mix and mingle planks when dry laying the floor for maximum aesthetic appearance. Blend moldings to planks that have similar color. Natural variations in color are not covered under warranty.
- It is the responsibility of the installer to determine if the job site conditions, environmental conditions and sub-floor are acceptable for the installation of BuildStarr flooring. Prior to installation, the installer/owner must determine that the jobsite meets or exceeds all applicable National Wood Flooring Association's Installation Guidelines. BuildStarr does NOT warrant against failure resulting from or connected with subfloor, job site damage, or environmental deficiencies after installation.
- BuildStarr makes no warranty or guarantee of the quality of the chosen installer's work or of a particular installation performed by him or her. BuildStarr disclaims all liability for any errors or improprieties in the installation of its products by an installer.
- Controlling flooring moisture content is important for success. Due to the fact that all hardwood flooring is hygroscopic, its size and shape changes naturally with the absorption or release of moisture. The amount of movement varies depending on the preventative steps taken at the time of installation (i.e. acclimation, moisture

BuildStarr

barrier application, etc.) and the stability home environment thereafter. Care should be taken to control fluctuating levels of moisture indoors.

BuildStarr Engineered Wood Flooring will perform best when the indoor environment is controlled to stay within a temperature range of 60° to 80°F and 30% to 55% humidity. Humidity levels below 30% and above 55% highly increase the probability of movement in the floor leading to such issues as gapping, cracking, cupping, warping, checking and veneer delamination. In some climates, the use of a humidification/dehumidification system may be required to maintain proper humidity levels.

Floor noise is normal and will vary from one installation type to the next. Occasional noise is due to structural movement and may relate to sub-floor type, flatness, deflection, and/or related to the fasteners, changes in environmental conditions, relative humidity and the amount of topside pressure applied to the flooring. For these reasons floor noise is not considered a product or manufacturer defect.

BuildStarr Engineered Wood Flooring is intended for installation above, on or below grade. For optimal performance below grade, the floating method is highly recommended.

Subfloor Requirements

General: Subfloor must be structurally sound and meet all NWFA guidelines. All subfloors must be flat to a tolerance of 3/16" in a 10' radius. Use appropriate leveling products for correcting subfloor deficiencies. Subfloor surfaces must be smooth, clean, dry, and free of contaminants that would interfere with an adhesive bond. All subfloors should be tested for moisture content (see "Subfloor Moisture Testing"). If high moisture readings are found, identify the moisture source, and correct the problem before installation. Do not install flooring directly over floor joist without proper subflooring.

Appropriate Wood Subfloors Materials:

- CDX Exposure 1 plywood minimum 5/8-inch thick
- OSB Exposure 1 subfloor panels minimum 23/32-inch-thick rated PS 2-92 or PS 1-95
- Solid-board subflooring should be 3/4-inch x 5-1/2-inch (1-inch x 6-inch nominal), Group 1 dense softwoods, No. 2 Common, kiln dried

Acceptable Subfloor Thickness Requirements:

Joist System Spacing (inches on center)	Minimum Thickness Plywood	Minimum Thickness OSB
12-inches to 16-inches	5/8-inch	23/32-inch
16.1-inches to 19.2-inches	23/32-inch	7/8-inch
19.3-inches to 24-inches	7/8-inch	1 -inch

Concrete Subfloors:

Subfloor must meet all above requirements. Concrete must be fully cured and at least 60 days old. Concrete must be free of dirt, oil, paint, old adhesive, wax, sealers and curing agents. Concrete that is not properly leveled can cause improper adhesive transfer, hollow spots, and squeaks. Sand or grind down high spots. Level low spots with appropriate leveling material; allow extra drying time for the leveling compounds. Test subfloor moisture content. To minimize moisture transfer from the slab, apply: Adhesive+ Moisture Control System.

Moisture Testing Subfloor

General: Test the subfloor for moisture content before installation. If high moisture readings are found, identify the moisture source, and correct the problem. Extend acclimation time and increase ventilation until the proper conditions have been met. Apply a moisture barrier. Please note that test results are only applicable the day of testing and will not ensure that moisture will not fluctuate with seasonal changes. Regardless of subfloor moisture content, the use of a moisture/vapor barrier is required for all installations. BuildStarr does not warrant against moisture related problems.

Wood Subfloors: Wood Subfloors: Use moisture meter to test wood subfloor moisture content. If results show moisture vapor at or exceeding 12%, determine its source and correct problem. Do not install the floor without a vapor barrier. BuildStarr always recommends using a moisture/vapor barrier, especially if the moisture content of the flooring and subfloor vary greater than 3%.

Concrete Subfloors: Concrete subfloors must be tested for moisture vapor pressure in more than one place for consistent readings. If test results show moisture vapor exceeds the minimum requirements below, do not install the floor without an impermeable vapor retarder with a perm rating of less than .13 designed to permanently block this moisture.

- Calcium Chloride Test (ASTM F 1869): Maximum vapor emissions cannot exceed 3lbs/1000SF in 24 hours
- Tramex Concrete Moisture Encounter: Moisture readings should not exceed 4% on upper scale
- In-Situ Probe Method (ASTM F 2170): Relative Humidity levels should not exceed 75%

Moisture Testing Wood Floor

Use a reliable moisture meter that will accurately read the specific wood species being installed. Examples of acceptable moisture meters include Delmhorst or a Lignomat SDM. If needed contact moisture meter manufacturer to verify settings for specific species being installed.

Moisture Barrier Requirements

General: Unexpected changes to subfloor moisture content may cause dimensional changes to the floor. To ensure a lifetime of satisfaction, it is strongly recommended that BuildStarr flooring be installed over a moisture barrier or vapor retarder per the following specifications:

Wood Subfloors: For best results, use a moisture barrier/vapor retarder with a perm rating between 0.7 and 50 when tested in accordance with ASTM E-96 Method A. Examples of acceptable moisture barriers for wood subfloors include: Asphalt laminated paper (UU-B-790a, Grade B, Type I, Style 1a.) and: Asphalt-saturated kraft paper. Due to the installation requirements for Meritage the above is only applicable when floating the floor. If nailing the wood flooring adhesive will act as your moisture/vapor barrier.

Concrete Subfloors: For concrete applications, a moisture barrier/vapor retarder should be chosen based on concrete moisture content. For unlimited moisture protection, BuildStarr recommends the use of Adhesive + Moisture Control System.

BuildStarr

1900 E. Golf Rd, Suite 950, Schaumburg, IL 60173