

# Installation Guide

## Allegheny Mountain Flooring Installation Guide

### Site conditions, Handling and Storage: N.W.F.A. Installation Guidelines, Sec. I

Allegheny Mountain Flooring is kiln-dried, equalized and conditioned to final moisture content of 5%-7%, the temperature in this process far exceeds 130 degrees, at which point the wood is sterilized for interior use. Solid hardwood flooring may be installed above or on grade, not below grade. Allegheny Mountain Flooring should be installed after all other construction that may affect wood flooring is completed. Concrete, drywall, plumbing and any other "wet work" should be thoroughly cured. Factory finished flooring is finished woodwork, handle carefully to avoid damage. Keep Flooring DRY at all times.

### Acclimation: Chapter 2 N.W.F.A. Installation guidelines

A near occupied environment should be established for at least 5 days before any moisture tests are performed. Acclimation is established by proper testing. Using a moisture meter intended for wood and specific species is recommended for the most accurate results. It is recommended to test the environment for the relative humidity prior to delivering any wood floor. As you can see in the chart below, it is best to establish a relative humidity at 35%-50% and a temperature of 60 -80 degrees. This is the optimal performance range for wood flooring and once this has been achieved the flooring will have met equilibrium moisture content. At this relative humidity and temperature, will have very little, if any, effect on the wood floor. Then, test the subfloor 20 times per 1,000 ft<sup>2</sup> and document it. Once documented, it is best to test the flooring 40 times per 1,000 ft<sup>2</sup> to ensure an accurate average of the flooring, and then document.



### Installer's Responsibilities/Owner's Responsibility:

**INSTALLATION CONSTITUTES ACCEPTANCE** of flooring material, subfloor/substrate, the jobsite itself including the ambient temperature and relative humidity at the time of installation, and all impacting variables that may affect a wood floor. It is the responsibility of both the installer and owner to inspect and approve each piece of flooring prior to installation.

**IF THE FLOORING AS SUPPLIED WILL NOT SATISFY THE CUSTOMER IN FULL, DO NOT PROCEED TO INSTALL.** Industry standards allow a variance from grading and manufacturing tolerances of 5%. (Refer to NWFA, Chapter 1, Part 1, C.).

**Owners responsibility:** Wood flooring performs best with a relative humidity of between 35%-50% and a temperature of 60-80 degrees. Failure to maintain these relative humidity temperatures would result in voiding our warranty. We warrant our product to be structurally sound for the lifetime of the floor if the temperature and humidity levels are followed.

For best results, we suggest using a National Wood Flooring Association Certified Professional to install your floor. A list of active NWFA Certified Professionals in your area can be found online at <http://woodfloors.org/certified-professional-search.aspx>.



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If the flooring's moisture content is higher than the 7%, all of our lumber is carefully dried to, then take a measurement of the face of the board. If the board is wider than the expected width, the board has expanded due to moisture. If the board is narrower than the board is expected to be, then the flooring has likely lost moisture and the flooring will need to acclimate in both scenarios. Moisture testing and physical measurements (of the boards face) are critical to the installation of wood flooring.

The only reason the floor would need to acclimate is if the flooring had a moisture content outside of the 6%-8% or if the "live in" conditions would be outside of the range of the 35%-50% and 60-80 degrees. If it is decided that acclimation is necessary, then make sure flooring is spread out in the rooms where it will be installed. It is also recommended to stack the wood flooring in a waffle pattern on top of 1" sticks and make sure there is plenty of airflow to ensure a proper acclimation. A box fan is often used to move the air around the stacked wood flooring. Prior to installation, after acclimation, it is recommended to test the floor again prior to installation to ensure the equilibrium has been met. See "subfloor" for proper moisture contents of flooring and subflooring.

## **Subfloor types and conditions: Types And Conditions (NWFA Installation Guidelines, Sec. II)**

### **Wood:**

A subfloor that is 1" or thicker plywood [as long as the joists spacing is 16" o.c. up to 19.2" o.c.] is suitable, and a thickness of 1" OSB is also an acceptable substrate, but plywood is preferred, as long as the joist spacing is met. On a subfloor under 1" total overall thickness, the flooring direction should run opposite or perpendicular to the joist. When you have an overall thickness of 1" or more then running the flooring in any direction is acceptable. Particleboard of any thickness is not recommended. After testing and documenting the moisture content of your subfloor, you can have as much as a 4% differential of the two products for strip flooring [2" wide] and no more than 2% on plank flooring [products wider than 3"]. If moisture contents are higher, then installation should not commence until the subfloor and the flooring have achieved an acceptable difference of moisture content.

### **Concrete: (Refer to NWFA Installation Guidelines, Section II, Chapter 4)**

Allegheny Mountain Flooring approves installation of our product over concrete as long as a wood-flooring adhesive is used and all installation instructions are followed according to that adhesive manufacturer. Most wood flooring adhesive manufacturers have limits on the widths of flooring they will warrant.

The concrete is tested for moisture and that moisture falls in line with the adhesive manufacturer's requirements.

### **Radiant Heat: (Refer to NWFA Installation Guidelines, Section IV Appendix H)**

#### **Preparation:**

Allow 1/2" expansion space between the wood flooring and any walls or other obstructions. Undercut door-jamb, casings, drywall, etc.

#### **Fastening the floor:**

##### **Chapter 9, Solid Strip and Plank Flooring Installation**

Cover the subfloor with a vapor-retardant paper such as Vapor Shield or 15# felt paper. Use 2" cleats or staples, spaced 8" to 10" apart on a 2" product and 6"-8" on any product wider than 2". It would also be recommended that any product 5" and wider consider an additional way of fastening the floor, like adhesive designed for wood flooring. If both, adhesive and fasteners are used, then a vapor-retardant would not be necessary.

Over radiant heat or with 1" plywood over a concrete slab, use 1" cleats or staples. Nailing is required within 2" of the end joints. As a rule of thumb, allow an expansion gap of 3/4" around the perimeter of the room and vertical obstructions. Our flooring cannot exceed 80 degrees or it will void our warranty and potential split the wood flooring.

If using our flooring over radiant heat then we recommend the use of a Fid Box, a device that gets installed beneath the floor embedded within our flooring. This device acts as a data logger that will allow the end user to follow the necessary temperature and relative humidity of our flooring. We sell these data loggers with our products to ensure proper performance over radiant heat or any application that warrants the need for data to protect the investment of the flooring.



## After Installation... Lifelong beauty is in your hands.

### DO NOT

- Cover our floor with anything that is not able to allow the floor to breath
- Use tape of any kind to hold something to our flooring, this will compromise the finish
- Damp mop, only use an approved Hardwood Floor cleaner

### DO

- Maintain adequate humidity 35%-50%, if this is not done it will likely change the dimension of the floor, which will result in unsightly gaps and/or cupping
- Vacuum regularly using the hard surface setting on the vacuum which will keep the vacuum's brush from rotating on the floors finish or sweep on a daily basis
- Protect floors from dirt or water, place rugs at entry points to help trap grit and absorb moisture that may damage the floor finish; however, note that rugs with rubber bottoms or non-skid pads may leave an imprint on the floor. Natural fiber rugs are a safer choice.
- Keep pet's nails properly trimmed to protect your floor
- Wipe spills immediately. Be especially attentive to sink, stove tops and dining rooms, which are more prone to such spills
- Install floor protectors on the bottom of all furniture that sits on the hardwood floor. Monitor these protectors from time to time to ensure they are performing properly.

