



STORAGE AND ACCLIMATION GUIDELINES

GENERAL STORAGE AND ACCLIMATION/CONDITIONING GUIDELINES

ACCLIMATION: The process of adjusting (conditioning) the moisture content of wood flooring to the environment in which it is expected to perform.

EQUILIBRIUM MOISTURE CONTENT: The moisture content of wood when in equilibrium with its environment. When wood is neither gaining nor losing moisture, equilibrium moisture content (EMC) has been reached.

STORAGE and CONDITIONS

1. Do not store wood flooring at the jobsite under uncontrolled environmental conditions. Garages, storage rooms which close to water source and exterior patios, for example, are not acceptable areas to store wood flooring.
2. Ideal interior environmental should be between 40% - 65% of relative humidity.
3. All the packs to be stacked on wooden sticks at least 3 pieces along the length of the planks. With the height of 100mm for the forklifts. Uneven stacking will cause the planks in the pack to bend.
4. It is advisable to stack using wooden pallets for easy and save the storage area.

GENERAL

1. Ensure that the building is enclosed.
2. Verify that the building is maintained at normal living conditions for temperature and humidity.
3. Where building codes allow, permanent heating and/or air conditioning systems should be operating at least five days preceding installation to promote proper acclimation and should be maintained during and after installation.
4. If it is not possible for the permanent heating and/or air conditioning system to be operating before, during and after installation, a temporary heating and/or dehumidification system that mimics normal living (occupied) conditions can enable the installation to proceed until the permanent heating and/or air conditioning system is fully operational.
5. Acclimate the wood flooring as necessary. Note: Not properly acclimating wood flooring may cause excessive expansion, shrinkage, dimensional distortion or structural damage. The worst-case scenario is one in which wood flooring is stored at the jobsite in an uncontrolled environment, then immediately installed. This is especially true when the materials are stored in an area that is subject to excessive moisture and humidity conditions. Acclimation outside of the area in which the wood is to be installed does no good at all; in fact, it is likely harmful to store wood flooring at the jobsite under conditions that don't reflect expected normal environmental conditions.
6. Prior to installation, ensure that wood flooring is within acceptable range of moisture content with the wood subfloor. For solid strip flooring (less than 3" wide), there should be no more than 4 percent moisture content difference between properly acclimated wood flooring and subflooring materials. For wide-width solid flooring (3" or wider), there should be no more than 2 percent difference in moisture content between properly acclimated wood flooring and subflooring materials.

ACCLIMATION

Wood flooring is a hygroscopic material subject to dimensional changes as a result of variations in moisture, temperature and humidity within the surrounding environment. Wood flooring simply needs to reach moisture content level in equilibrium with the surrounding environment (EMC) in which it will be installed, at or near normal living conditions. The process of reaching this equilibrium is defined as acclimation, which allows the wood to properly adjust itself to the normal living conditions within the structure; that is, the temperature, humidity conditions and moisture content that will typically be experienced once the structure is occupied.

THE PROCESS OF ACCLIMATION

If the manufacturer recommends that the wood flooring be acclimated before installation, proceed as follows:

1. Acclimation can be facilitated by breaking the floor units into small lots and/or opening the packaging. A common practice is to cross-stack the materials with spacers ($\frac{3}{4}$ " to 1" sticks) between each layer of flooring to allow air circulation on all sides of all boards.
 2. Most recommendations state that the materials need to acclimate from a minimum of 3 days up to no given maximum. While it takes time to acclimate a product, the most important aspect is that the materials reach a moisture content that is in equilibrium with its expected use. Acclimate the materials as long as necessary to accomplish this task, taking the necessary moisture readings to indicate when the materials have reached the proper moisture content and when no further changes occur.
- For site-finished wood flooring, before installation and before sanding and finishing takes place, allow the flooring to acclimate (settle-in) to the controlled environment, and to stabilize for a period of time. Some flooring professionals suggest 5 to 7 days. Engineered flooring installed using an adhesive application system may require a longer post-installation acclimation period to allow all residual off-gassing to occur prior to application of a finish. Follow adhesive manufacturer's recommendations.
 - Tropical imported species generally require more time in order to properly acclimate the wood flooring. Some tropical species lose moisture or gain moisture at faster or slower rates than domestic species due to higher overall density, oil and resin content and interlocking cell structure. In addition, the resins and oils make accurate MC readings more difficult. Resistance (pin type) meters require multiple readings 3 of multiple boards in order to arrive at a more accurate average MC reading. Pinless meters that include multiple depth level adjustments may offer faster and more accurate internal readings.
 - Engineered and solid factory finished flooring follows specific manufacturer's recommendations. Follow manufacturer's guidelines to retain all warranty coverage. Warranty coverage generally requires that jobsite conditions be maintained between 40% to 65% relative humidity and that those conditions must be maintained before, during and after installation for the life of the floor. Failure to comply with these manufacturer's requirements may result in irreversible structural damage and void related warranties.

