



# Hardwood Flooring - Moisture Control and Acclimation Guidelines

## Moisture Control/Radiant Heat Statement

When receiving wood flooring the customer is to acclimate the floor to the environment. We recommend following the NWFA's guidelines for acclimation. Solid flooring generally takes 10 - 14 days to acclimate and then check and see if the moisture level of the floor is between 6% - 9%. That is the moisture level percent for most regions. For extreme dry or humid climates please refer to the NWFA Equilibrium Moisture Content Chart. Acclimate the floor to your conditions. When nailing down a floor to plywood the difference in moisture content between the plywood and the flooring is not to be more than 2%. This is important to prevent moisture damage to flooring. For engineered flooring check with manufacturer for specifics as they are all different. Acclimation time is only considered after HVAC system has been running for a minimum of 48 hours and has established proper environment conditions in the building.

Moisture problems in wood floors can be caused by different factors. Wood absorbs or loses moisture until equilibrium with the surrounding air is reached. When the moisture content changes, shrinking, cupping or even crowning may occur.

Ambient conditions inside heated homes or offices usually range between 35% and 55% relative humidity when the temperature is 60 degrees F to 80 degrees F. Relative humidity between 35% - 55% must be maintained throughout the life of the floor.

Floor installers have to deal with different relative humidity conditions depending on when and where the installation takes place. Average relative humidity differs between coastal and inland areas and between summer and winter. This is the main reason why acclimation is an important step when installing hardwood floors.

In dry or humid climates care must be taken to maintain proper conditions to avoid increasing the tendency of natural wood to shrink, crack, swell and warp. When exposed to low humidity (below 35%) the engineered wood flooring "top layer" is susceptible to shrinkage, cracking, and delamination. Certain wood species are much more susceptible to shrinking and cracking when exposed to low humidity. Some of these species are but not limited to: Jatoba (Brazilian Cherry), Ipe (Brazilian Walnut), Santos Mahogany, Wenge, Cumaru (Brazilian Teak), Douglas Fir, Hard Maple, and Tigerwood.

### **Radiant Heating Floor Systems**

When installing solid or engineered hardwood flooring over a radiant heat flooring system only approved floors will have a warranty. Written approval from Hurst Hardwoods or the flooring manufacturer must be given to customer at time of purchase. Radiant Heat can cause shrinking, cracking, delamination etc. to hardwood flooring and only certain solid or engineered floors are designed to handle the conditions produced from radiant heat. If your flooring purchased from Hurst Hardwoods has a warranty to be installed over radiant heat it must be stated on customers invoice.