



Recommended Humidity and Temperature Range:

One of the easiest ways to avoid wood flooring installation failures is to have a clear understanding of relative humidity (RH) and its impact on wood. Wood is a hygroscopic material, which means that it will swell and shrink as it absorbs and loses moisture. This will happen as a direct result of the environment it is placed in. The environmental factors that affect wood flooring are the temperature and RH (relative humidity) of the surrounding air.

Acclimation is the first step in managing how RH (relative humidity) affects wood. Acclimation is the process that we use to bring wood to the moisture content that coincides with the expected in-use conditions of the facility in which it will be installed. This is known as bringing the wood to equilibrium moisture content (EMC).

As a general rule, wood floors will perform best when the interior environment is controlled to stay within a relative humidity range of 40 percent to 60 percent, and a temperature range of 60 degrees to 80 degrees Fahrenheit, but optimal conditions will vary in different regions based on average moisture content and RH (relative humidity).

Stagnant air is not good for wood flooring; therefore, we recommend that you leave the HVAC system's fan switch in the "On" position to provide a flow of air across the floor.

If away from home, the climate controls should be left within the parameters suggested above.

During the winter heating season, Relative Humidity levels plummet and extra care must be taken to maintain an adequate environment for your wood flooring to perform optimally. Nearly every wood floor will have some seasonal separation between the individual boards – this is normal. However, excessive shrinkage from low RH (Relative Humidity) levels can cause more serious, irreparable issues like cracking, cupping, delamination, and even buckling. This can be prevented by using a humidifier during the cold winter months.

It is extremely important to keep the environment surrounding your wood floor at the "normal" living conditions.

If necessary, heating systems, air exchanges, air conditioners, dehumidifiers, whole house or portable humidifiers should be used to control these environmental conditions.

Relative Humidity really matters

When the indoor relative humidity is maintained at a consistent level throughout the year, natural expansion and contraction of the boards will be minimized.

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During the heating season, forced air heating, wood stoves and electric heat tend to create very dry conditions. A whole house humidifier is recommended if the home has a forced air heating system. Otherwise, the use of a portable humidifier is a good choice. An average size portable humidifier is suggested for every 400 square feet of installed flooring. Be sure to read the humidifier's operating instructions for best results.

Non-Heating Season: The reverse is usually the issue. The home's air conditioner or a dehumidifier should be used to lower the interior relative humidity if it exceeds 60%. In a humid environment, which means that the humidity in the house is often too high, the use of a dehumidifier is recommend. In addition to expansion of the wooden floor, too much moisture in the house can also cause mold and wood rot. This has a very adverse effect on health. Turning on the heating system periodically can also control the interior environment.