

Hardwood Flooring Installation

ENVIRONMENTAL CONDITIONS

Always be sure conditions which exist during installation are in a range of relative humidity and temperature that will exist after the installation is complete. This is especially important during periods when uncommonly high relative humidity may exist.

Hardwood flooring is manufactured with wood moisture content most compatible with a 35%-50% relative humidity range. Geographical regions and available mechanicals determine the typical range of temperature and humidity for each facility. Maintaining a 15% fluctuation between highest and lowest average indoor relative humidity provides limited shrinkage and growth.

FLOORING ACCLIMATION

The benefit of flooring acclimation depends on when the installation occurs. In most regions of the country, flooring typically will only reach peak wood moisture content when acclimated during mid to late summer environments.

INTERMEDIATE EXPANSION SPACES

Flooring installation is often required while wood moisture content remains below its expected peak. This may require the use of intermediate expansion spaces to allow for anticipated flooring growth. Spaces generally range from 1/16" up to 1/8", noting that narrower spaces require less movement of the flooring strips during expansion and are less visually objectionable.

It is important to establish expected peak wood moisture content in one of the following ways:

1. Refer to attached Table 1 after confirming expected humidity and temperature based on intended operation of available mechanical system,
2. Or, confirm that facility will operate in the preferred 35%-50% relative humidity range, which will result in approximately 9% peak wood moisture content,
3. Or, refer to attached USDA map for wood moisture ranges based on historical regional environmental conditions.

After establishing expected peak wood moisture: determine expected moisture content increase as described on the attached page, and refer to Table 2 to determine required spacing.

IMPORTANT RECOMMENDATIONS

- Always be sure conditions which exist during installation are in a range of temperature and humidity that are expected to exist when the facility is occupied.
- **NEVER** install flooring when wood moisture content exceeds the expected peak normally anticipated for the facility.
- Keep a log of environmental conditions, moisture content readings (20- 30 boards each day) and expansion row provisions. Adjust intermediate expansion spaces accordingly based on daily moisture content readings.
- If intermediate expansion spaces are required, explain the reason for providing them to the owner.

**** Recommendations for installation of standard tongue and groove hard maple flooring*