



Wood Flooring and the Effects of Humidity

Wood Flooring will perform best when the interior environment is controlled to stay within a relative humidity range of 30% to 50% and a temperature range of 60 to 80 degrees Fahrenheit. Fortunately that is about the same comfort range that most humans enjoy. The chart below indicates the moisture content wood will likely have at any given combination of temperature and humidity. Although some movement can be expected even between 6% and 9% moisture, wood can expand and contract dramatically outside that range.

Temperature (Fahrenheit)

50	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3
60	4.6	5.4	6.2	7	7.8	8.6	9.4	10.2	11.1
70	4.5	5.4	6.2	6.9	7.7	8.5	9.2	10.1	11
80	4.4	5.3	6.1	6.8	7.6	8.3	9.1	9.9	10.8
90	4.3	5.1	5.9	6.7	7.4	8.1	8.9	9.7	10.5
Humidity	20	25	30	35	40	45	50	55	60

The concerns of relative humidity control have been addressed by all major wood flooring manufacturers and are clearly documented by them and the National Wood Flooring Association. The following are important points to consider:

- ☑ It is the responsibility of the homeowner to keep the relative humidity within a constant and acceptable range. Consideration of an appropriate humidification system be given when the home is designed,
- ☑ Even if the atmosphere is generally controlled within this range, there will still be some movement as the seasons change and the relative humidity moves up or down.
- ☑ Wood is a natural product and its limits must be respected. Because extremely low humidity has such a profound effect on properly manufactured and installed wood flooring, manufacturers do not consider some plank separation or cracking to be defects that would be covered under their warranty.

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