

## Relative Humidity

Relative humidity is the amount of water vapor in the air, expressed as a percentage of the maximum amount that the air can hold at a given temperature.

Wood flooring will perform best long-term if it is maintained at a consistent temperature and relative humidity level. Different regions of the country will have different conditions that are considered normal for that area, but in general, wood flooring has a comfort zone for optional performance.

**MOISTURE CONTENT OF WOOD AT VARIOUS TEMPERATURES AND RELATIVE HUMIDITY READINGS**

Fahrenheit	Celsius	Relative Humidity (percent)																			
		1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
30		1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
40		1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
50		1.4	2.6	3.7	4.6	5.5	6.3	7.1	7.9	8.7	9.5	10.4	11.3	12.4	13.5	14.9	16.5	18.5	21.0	24.3	26.9
60		1.3	2.5	3.6	4.6	5.4	6.2	7.0	7.8	8.6	9.4	10.2	11.1	12.1	13.3	14.6	16.2	18.2	20.7	24.1	26.8
70		1.3	2.5	3.5	4.5	5.4	6.2	6.9	7.7	8.5	9.2	10.1	11.0	12.0	13.1	14.4	16.0	17.9	20.5	23.9	26.6
80		1.3	2.4	3.5	4.4	5.3	6.1	6.8	7.6	8.3	9.1	9.9	10.8	11.7	12.9	14.2	15.7	17.7	20.2	23.6	26.3
90		1.2	2.3	3.4	4.3	5.1	5.9	6.7	7.4	8.1	8.9	9.7	10.5	11.5	12.6	13.9	15.4	17.3	19.8	23.3	26.0
100		1.2	2.3	3.3	4.2	5.0	5.8	6.5	7.2	7.9	8.7	9.5	10.3	11.2	12.3	13.6	15.1	17.0	19.5	22.9	25.6
		5	10	15	20	25	30	35	40	45	50	55	60	65	70	75	80	85	90	95	98

Relative Humidity (percent)

With regional exceptions, wood will perform best at a temperature range of 60 - 80 degrees Fahrenheit, and 30 - 50% relative humidity. Outside this range, wood will react adversely to its environment. Relative humidity outside these ranges can affect not only the wood, but indoor air quality and human health as well.

**More-detailed information about ideal jobsite conditions for wood flooring is available in the NWFA Wood Flooring Installation Guidelines and Methods publication, or at <http://member.nwfa.org/?page=InstallGuidelines>.**