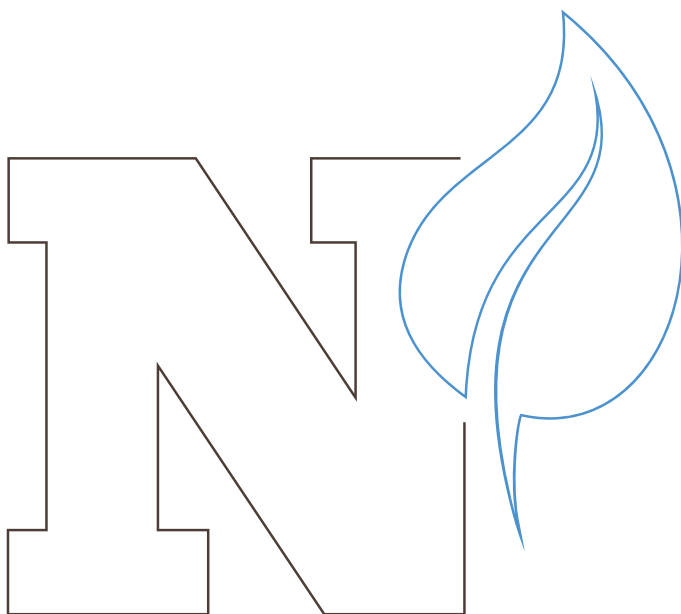


Moisture Content Guide

VERSION 1.181024

woodandbeyond.com



Equilibrium Moisture Content (EMC)

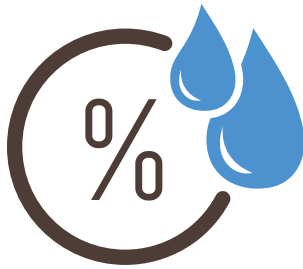
DEFINITION

“The water vapors always seek a balance with their surroundings. If the air has higher Relative Humidity (RH) than the floor has Moisture Content (MC), some of its humidity will be transferred to the wood. If the air is drier, it will absorb some of the vapors from the floor instead. Once the wood no longer gains nor loses water vapors it has achieved equilibrium moisture content (EMC).”

MC (MOISTURE CONTENT)

is key factor for the success and stability of your wooden floor.

Through checks for moisture content of subfloor/substrate in order to meet the appropriate industry standard are vital for the finish flooring material to be installed.



Moisture Testing in General

All sub floors/Substrate must be tested for moisture prior to bringing the flooring into the site residential, commercial or both.

Info and records of all measurements taken including; the date & time, relative humidity (RH), temperature at the room, the type of meter along with a plan of test locations.

Ensure job site conditions are met. Turn off any artificial aids used for accelerating drying at least four days (96H) before final readings are attempted.

TWO MAIN KPI

(Key performance indicators) which will be explain in detail, below, are:

FOR CONCRETE SCREEDS

Moisture content should not exceed 2% MC Moisture content.

FOR WOOD SUBFLOORS

There should be no more than 2% difference in moisture content between wood flooring and subflooring materials.

Testing's positive result in general, give you the ability to start or not start a job. These tests do not give a permanent condition of your substrate, but merely Key indication "at the time the test was taken"

Important

Wood and Beyond strongly recommend using of Dump proof membrane and/or Liquid DPM to reduces the potential moisture related problems. Wood and Beyond propose the use of vapor barrier with all installations.

MOISTURE TESTING IN CONCRETE SUBFLOORS

British Standards 8201:2011 recommends using relative humidity (RH) testing of concrete sub floors.

BS recommends (Annex A) hygrometer test which should give a reading of not more than 65% relative humidity (RH).

There are several types of test for measuring the moisture content of a concrete screed

CONCRETE ENCOUNTER (MC)

- non-destructive, very quick, surface test

CALCIUM CARBIDE TEST (CM)

- destructive, quick and very accurate

RELATIVE HUMIDITY (RH)

- non-destructive, slow but very accurate

Each test has its own pros & cons as specify above.

Prior MC testing begins, the concrete slab must be a **MINIMUM** of 40 days Dry. This has to be considered by the thickness of the Screed, it's made, and the overall construction of the site.

The locations of the test are highly important and should be preform in several areas across the site. Minimum of 15 points per 100 square meters needs to

be tested. 3 tests at least should be taken 1m from the exterior walls.

Especially when fitting taking place on basement and ground floor.

Moisture content of concrete screed should not exceed 2% (CM)

A reading in one area indicate over 2% it's a problem that must be corrected. Pay special attention to vulnerable areas such as exterior walls, basement, new sites.

Always follow the meter manufacturer's instructions.

If using Relative Humidity testing any readings should not exceed 75% RH.

We recommend using our **5kg PRIMER POLY ECO** damp proof membrane prior to ALL glue down installations and any of Wood and Beyond DPM underlay for ALL floated installations.

When using DPM underlay make you seal tape edges and seal properly.

Its also important to deliver the flooring to site only once meter reading been done, and Screed meets its Dry requirements. The equilibrium of MC tolerance of +2% (i.e. 4% MC) for the acclimatization process. But if its over 4% - Do not deliver flooring to site.

MOISTURE TESTING IN WOOD SUBFLOORS

Test for moisture at several locations in the room, a minimum of 15 points per 100 square meters sum and averaging all results.

Test for moisture using an electrical resistance moisture meter, ensuring tests are taken with the moisture probes placed in line with the grain and followed by supplier instructions.

MC of wood sub floor should not exceed 12% or be greater than 2% of the mois-

ture content of the floor

A high reading in one area indicates a problem that must be corrected. Pay special attention to problematic areas such as basement or pipes/plumbing areas.

We recommend using Sisalkraft 728 Builders paper for all nail down installations, and any of Wood and Beyond DPM underlay for ALL floated installations.

Avoid any Polyethylene, naylon sheet as it might trap and hold moisture on the plywood or other wood subfloor.