

Protimeter Aquant

Non Invasive, (Pinless) instant moisture readings.

The Protimeter Aquant moisture meter will detect moisture below surfaces and finishes such as ceramic tile, floor tile and hardwood floors. The Aquant is not adversely affected by surface moisture.

The single electrode mounted at the top of the instrument makes measurements in corners and in hard to reach areas easier.

Features:

- Up to 3/4 " depth of measurement.
- User adjustable audible warning.
- Reading hold.
- Auto shut off.
- 9v Battery.
- Pouch with belt loop.
- One year warranty.



FAQ's

What is the Wood Moisture Equivalent (WME) scale as used on Protimeter moisture meters?

Protimeter moisture meters are calibrated for wood but are also suitable for measuring moisture levels in other materials. They are highly versatile tools for assessing the moisture condition of a wide range of non-conductive materials.

In wood, the instruments measure the material's actual percent moisture content (%H₂O). When testing material other than wood, the meters measure the wood moisture equivalent (WME) value of the material. WME is the moisture level that would be attained by a piece of wood in equilibrium with the material being tested. As the critical moisture levels for wood are known, WME measurements enable the moisture meter user to establish if materials are in a safe air dry, borderline or damp condition.

What is Relative Humidity (%rh)?

Relative humidity (% rh) is the degree of saturation – or the amount of water vapor that air contains – relative to the amount it would contain if saturated. This is often expressed as a percentage, so saturated air at a given temperature has 100%rh.

If air is warmed, the amount of water vapor it could hold at saturation is increased. Consequently, the % rh value falls, even though the actual amount of water remains constant. Similarly, if the air is cooled, the amount of water vapor it can hold is reduced. Consequently, the % rh value rises.

Condensate forms when there is an excess of water in saturated air.

What is Equilibrium Relative Humidity (ERH)?

If a dry and absorbent material, such as wood or brick, is placed in a very damp environment (high %rh) it will absorb water and its moisture content will increase. Conversely, absorbent materials with high moisture content will lose moisture to a dry environment (low %rh).

The movement of moisture from material to environment and vice versa continues until the vapor pressures (within the material and the environment) have equalized. When this condition is reached, the moisture level of a material can be expressed in terms of equilibrium relative humidity (ERH).

ERH techniques are very useful for assessing if structures are in a dry, borderline or damp condition. For example, when the ERH of a concrete floor falls to 75, a flooring contractor knows that it has dried sufficiently for a decorative floor covering to be laid.

What is Dewpoint?

Dewpoint is the temperature at which a sample of air becomes saturated. Condensation forms on surfaces whose temperature is equal to or lower than the prevailing dewpoint temperature.

At what level of WME is a material in a wet or dry condition?

18% (Green Zone) - The material is in a Safe Dry condition, moisture related problems of decay/deterioration will not occur.

18% - 20% (Yellow Zone) - The material is in a Borderline condition, decay/deterioration may occur under certain conditions.

20% (Red Zone) - The material is in a Wet condition, decay/deterioration is inevitable in time unless the moisture level of the material is reduced.

I suspect my %WME readings in a wall are too high, what should I check?

Artificially high moisture meter readings may be obtained in material that;

- (i) has been heavily contaminated by hygroscopic salts, or
- (ii) in materials that are conductive by their own nature.

In the case of hygroscopic salts, the presence (or otherwise) of nitrates and chlorides should be established when investigating suspected rising dampness situations in particular. This can be achieved with the Protimeter Salts Analysis Kit (BLD4900).

If the material being tested is conductive - such as clinker block work - an alternative moisture measurement technique should be used. A hygrometer could be used to measure the material's ERH, or its actual moisture content could be determined with an Ashworth Instrumentation Speedy Tester.