



DAMPNESS/MOISTURE

Within the flooring industry the terms damp and moisture are frequently confused or interchanged. Both signify the presence of water in some form, either as liquid or vapour. As a guide to this subject for the purposes of flooring installations, the difference is simply that moisture is always present to some extent, even in what we consider to be a "dry" floor, but dampness is an excess of moisture, which will cause problems with the installation.

A **DRY FLOOR** has an acceptable moisture content which results in hygrometer readings of below 75% R.H. (Relative Humidity) at a steady temperature of 20C, when a sealed, enclosed air pocket, in contact with the floor surface is tested and hourly readings are constant, showing that the moisture content of both the air pocket and the floor surface have reached equilibrium. As temperatures can vary considerably over a period of 24 hours this process can be very slow, 24-48 hours typically, **an electronic meter will provide an immediate result** showing whether the floor is dry enough or if more testing is advisable, ie. close to 75%R.H. **GENERALLY SPEAKING DRY FLOORS ARE WELL BELOW 75% R.H.**

A **DAMP PROOF MEMBRANE** (DPM) is a barrier to the movement of water or water vapour through the structure and is normally built into the floors and walls during construction. This is usually only required at or below ground level, as the main source of dampness in a building is from the ground below. A DPM does not eliminate moisture, it severely restricts and controls the passage of moisture through the structure to maintain **acceptable** levels of moisture. Dampness due to a damaged or missing DPM is often called **rising damp**. **OLD BUILDINGS SELDOM HAVE DPM,s.**

However until such time as a new concrete or sand/cement floor has dried out adequately, (a rough guide would be one day of drying time per 1 mm of screed thickness, for ordinary Portland cement), additional moisture from the mix will be present above the DPM, this is called **residual moisture**, and will cause equally serious problems if not dealt with. See surface damp proof membrane.

A **SURFACE DAMP PROOF MEMBRANE** is a moisture barrier applied on top of the floor structure, which acts in the same way as a built-in DPM. Often used to suppress residual moisture to save time otherwise required for drying out, but also effective for isolating a new floor finish when covering older floors without a DPM or where it is suspected that a DPM may have been damaged by subsequent building work. Surface DPM's are usually a thin epoxy resin coating, requiring a smooth unbroken surface to produce a continuous waterproof film. A more robust method is to use flooring grade Rock Asphalt, typically 15-18 mm in thickness.

A **MOISTURE VAPOUR BARRIER** is simply a means of restricting the movement of water vapour, which varies according to temperature, season and climatic changes as well as specific causes, such as the use of a shower, within the building.

Water vapour is always present to some degree in all buildings. In the air, a certain amount is necessary to avoid discomfort but too much can be equally unpleasant. In the building materials used, timber for example would be very much weaker and more brittle if totally dry, but conversely too much moisture will cause expansion or warping in timber or manufactured boards and in the long term will result in rot and decay of the material.

Fluctuations in the moisture content in timber and timber products result in expansion and contraction, which in turn can cause problems for applied finishes such as paint and floor-coverings. The use of a moisture vapour barrier restricts and controls these fluctuations, significantly contributing to the stability of the finished installation.

JUMPAX SHOULD ALWAYS BE INSTALLED WITH A MOISTURE VAPOUR BARRIER

When installing JUMPAX, the sub-floor must be permanently dry, and incorporate an effective damp proof membrane, as for all normal flooring installations. I.e. Industry standard of less than 75% R.H. when tested with a Hygrometer, in the approved manner. Excessive moisture must be allowed to dry out or treated, by use of a surface epoxy membrane or alternatively, flooring grade rock asphalt.