

**Introduction**

In many localities throughout Australia there are those times of the year when skies are blue and a warm wind prevails. However, it can also be at these times when you hear on the news about bush fires or drought conditions and you see your lawn browning off and feel your lips starting to crack. I know at this time it's certainly getting dry.

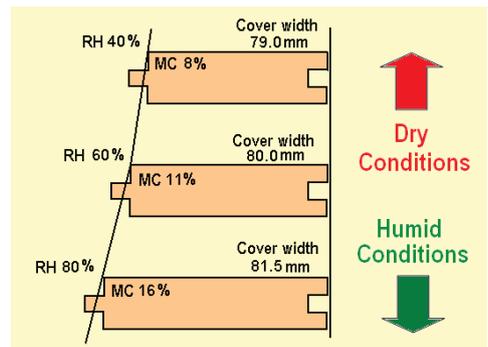
Well, I wonder what effect this is having on my timber floor. I also notice that some trees and shrubs are also doing it a bit tough as leaves drop off and really my timber floor is just another natural product that will also be influenced by these dry weather conditions. Yes, what I am seeing are gaps that are getting wider and surprise, surprise a few more gaps that weren't there a week or so back. I take a casual look at the humidity meter and raise my eyebrows when I see 30% and think to myself, didn't expect it to be that dry.



So let's take a look at weather patterns and the conditions within our dwelling to understand what is happening with our floors.

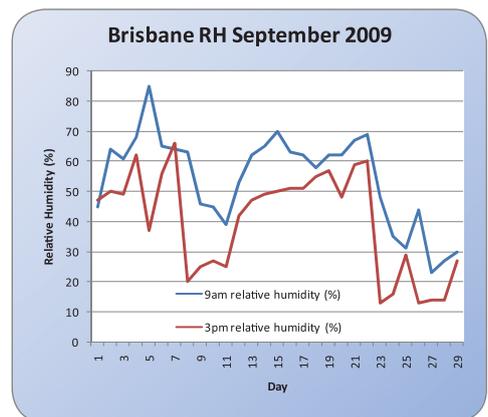
**Relative Humidity, Moisture Content and Shrinkage**

The relative humidity is a measure of how dry the air is and the lower the value the drier the air. When the relative humidity is low, moisture in timber flooring moves into the air causing the moisture content of the flooring to reduce. A reduction in timber flooring moisture content is accompanied by shrinkage. This is shown in the adjacent diagram.



Although both temperature and humidity alter throughout the day and night, a floor's response is usually relatively slow and we often only see minor changes from month to month. However, during the very dry times things can be different. The dry air, warm temperatures and a solid breeze make timber floors very responsive to moisture loss and gaps at board edges can quickly appear.

Therefore weather patterns can cause quite sharp changes in humidity over a short period and as a consequence of this there can be relatively sudden changes in the moisture content of timber floors. With this drop in moisture content board widths reduce and gaps at board edges appear.



In many localities there is a time of the year when the humidity drops rapidly or when heating systems are turned on and result in similar change to very dry conditions. The graph shows such an effect in Brisbane at the end of September and it is no different in Victoria during bush fire season. The consequence of this is that many of the more recently laid floors will suddenly show shrinkage gaps after perhaps being tight for a number of months.

So what can be done at these times? Well there are a few simple things that can assist. Firstly, the relative humidity is lowest in the afternoon and this is also the breeziest time of the day. Therefore it is not beneficial to have strong breezes blowing through your house at this time. Certainly, with ceiling insulation and cooling systems it is often not necessary. However at other times of the day the house should be regularly ventilated as reverse cycle air-conditioning can also have a drying effect. It may also help to try to raise the relative humidity in the rooms. Bowls of water, some water left in the sink over night or wet washing on a clothes horse during the day or night will all add moisture into the air. Similarly the humidity generally increases during the evening so ventilation over night is also beneficial.

These conditions do not last forever and at other times of the year the humidity will rise and floors respond by taking in moisture from the air and yes that gap that suddenly appeared during the dry will be gone and those that may have already been there are no longer quite so wide.

And finally if your floor is being laid during these dry times or being coated, spare a thought for the installer, sander and finisher. There may be smiles on the outside but this also becomes a very difficult time for them and they could even suggest a change of products. They know the difficulties and often need a bit of leeway in the timing to provide you with the floor that both you and the finisher desire. Oh and one last thing, if your floor is laid just before Christmas and the builder goes on a few weeks well earned leave, please ensure there are some temporary coverings on the windows and that the house is ventilated during this time. Oven like conditions can be created when houses are closed up during construction and your floor won't appreciate it.