



## UNDERSTANDING MOISTURE & MOVEMENT



AS A ROUGH GUIDE, DEPENDENT ON THICKNESS, FOR EVERY 5% CHANGE IN MOISTURE CONTENT, YOU CAN GET BETWEEN 1 AND 2% MOVEMENT.

Creating well-designed and elegant wood products takes great materials and lots of time and effort from a skilled hand. However, one thing that is under-appreciated and taken for granted is the moisture content of the timber, something that can drastically change the integrity and look of the product over a period of time.

The moisture content (MC) of a piece of kiln dried timber can naturally be quite varied depending on its thickness, but also how the timber has been kilned and, crucially, how it has been handled and stored since then. The product's MC is commonly expressed as a percentage, and it is fundamental to know it before processing the raw material into a beautiful finished piece.

If, after the timber has been crafted into a window, door, or other item, its MC changes in either direction, then there can be some serious detrimental effects to the look and structure of the product. Timber shrinks or swells when the amount of water trapped within its cells changes, so whether the product is drying out or absorbing moisture, there can be potential problems.

Timber shrinkage varies largely depending on what type of wood you are dealing with – the direction of the grain and the growth rings in the section can affect the amount of movement as it dries out.

It is vitally important, when you are considering which hardwood to use on a new product, that you ensure it's MC matches the environment in which it will be used. After all, when you are buying high-quality materials and creating new items, you want them to stay looking the way you had intended.

Shrinkage can cause serious problems for timber products, as the cells dry out, with the effects differing depending on the percentage change in MC. If there has been a drastic change in the level, this can produce unsightly splits and cracks. Likewise, when timber absorbs moisture the physical size of the section will increase due to the cells expansion. This is why it is so important to ensure the MC is spot-on, from the beginning.

Whatever you turn your hardwood into, whether it is a door and frame, window, desk, worktop, staircase or anything else, you need to protect and seal it to maintain it's integrity and prevent potential issues.

Should you be experiencing any of these potential problems, or would like to discuss moisture and movement further, please feel free to contact our staff who can offer alternative solutions to help eliminate a large amount of these issues.