

## The Importance of Board Swell Rate

### Q1 Why do some wood laminate floors give problems and other don't?

This is an interesting topic, and one which you may have spent many hours considering. Meanwhile the reason is simple.

When the humidity in a room exceeds 60%, the laminate boards will expand. Equally, when the humidity falls below 30% the boards shrink.

This is a phenomenon of nature and not something that you can avoid.

### Q2 So, how can you best control the effect of the expansion and contraction?

Make sure that the board that you are using has as low a swell rate as possible.

### Q3 What is an acceptable operating humidity range?

South Africa has one of the highest humidity variations in the world, and most of our buildings do not have efficient climate control systems. We open the window when it's hot and sticky or close the window when it's cold and damp.

Humidity in South Africa has a variation range from almost 100% humidity to as low as almost 0% humidity. Daily ranges are often over 50% in one day. (See below)

The generally recommended range for wood laminate is a variation of no more than 30%. That is to say a low of 35%, and high of 65%, but remember it's the variation that's important. This is why acclimatisation is very important.

Temperature plays a role in humidity, but it's not the key factor. However surface temperature should not exceed 28 degrees normally, but watch and try measuring the surface temperature on the floor, when the sun beats through a big South African glass window, or sliding door left open.

Here are some of the humidity recordings in some of our key cities today (3<sup>rd</sup> October 2014):

Johannesburg	32% afternoon	88% overnight
Durban	62% afternoon	84% overnight
Cape Town	52% afternoon	78% overnight
Bloemfontein	12% afternoon	52% overnight
Port Elizabeth	67% afternoon	83% overnight
East London	62% afternoon	85% overnight
Pretoria	27% afternoon	77% overnight
Vereeniging	24% afternoon	80% overnight
Windhoek	6% afternoon	19% overnight

Remember these ranges are just for today. When you consider these over a full year, given changes in climate throughout the year, the variation is way outside any acceptable range for all wood laminates.

Ever wondered why places like Vereeniging need a quality laminate, with a 56% humidity variation today, in the space of less than 12 hours. Pretoria at 50%, Johannesburg at 56% and Bloemfontein at 40%. Crazy stuff indeed.

This is why it's important to consider buying a laminate board that has a very low swell rate.

\*\* Weather information supplied by [www.accuweather.com](http://www.accuweather.com)

#### **Q4 What is an acceptable board Swell Rate?**

Any product with a swell rate in excess of 12% is considered unacceptable for our climate in South Africa.

#### **Q5 What happens if I use a board with a higher swell rate than 12%?**

The answer's simple.....

When the humidity increases, the laminate boards will expand closing the clearance gaps and if the pressure on the board builds up, it will cause visible ridges along the joints – this is called cupping. Bulges may also appear in the middles of the boards – this is called crowning.

When the humidity declines (often at mid-day) the laminate board contracts or shrinks, and the joints between the boards separate, leaving gaps between them.

Although these movements are actually unavoidable, you can minimize the effects by using a higher specification board, with a low swell rate.

Boards with swell rates as high as 18%, - which is the standard European Specification for EN13329-2006 - will expand and contract very easily. The above problems will almost certainly be noted with when using such products.

#### **Q6 How do I know what I am currently buying?**

Ask the supplier to provide a manufacturers certification, and note the board swell rate. If it's higher than 12% you will almost certainly experience expansion problems to one degree or another.

It's these sorts of problems that cost dealers their good reputation and cause customer dissatisfaction, and costly call out's.

#### **Q7 Why does Parador NEVER give any problems?**

Parador wood laminate sold in South Africa is rated generally at between 8 and 12% swell rate, and that's why, in the past three years we have NEVER once had one single customer comeback for expansion, or any other reason for that matter.

Problem free installation is what we all want .....

For the record Parador have some cheaper products in Europe rated at 14% swell rate, but they refuse to supply that into our market. Remember in Europe climate is less of a problem due to the fact that most buildings have central heating or full climate control systems in most homes and buildings.

Perhaps this is why Parador commands over 25% of the Australian market for laminate.

*Issued by Floors Etc Group (Pty) Ltd., in the interests of improving knowledge.....*