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With reference to my visit to the Seychelles islands. This has been an important visit for me as when it comes to wooden flooring conditions and method of installation of which the flooring is laid are crucial for a successful installation. In South Africa I am the vice Chairman of SAWLFA (The Southern Africa Wood & Laminate Flooring Association) and in charge of the solid wooden flooring division of SAWLFA. Every reported floor failure on solid/engineered solid in South Africa comes to my attention and I personally see and report on 90% of these. Floor failures in wooden flooring are rife amongst the installers that try cut corners to get an order by being cheaper and by ignorant installers who have not bothered to join our association and be educated on the technical side and science of wooden flooring and wooden flooring installations. There are very strict rules and procedures to installing a wooden floor for a life time successful installation.

Now that I have visited the Seychelles this now gives me better insight to the conditions on the islands. First of all I would like to state that going for wooden flooring in the Seychelles is an accident waiting to happen, and now experiencing the conditions and speaking to the trades on the islands I can see why I have heard of many floor failures that have happened on the islands and understandably so. We can offer advice now that can stop floor failures in their tracks and if there are problems they can easily be resolved with no floor failure.

There are two main issues that are a cause of failure in the Seychelles.

1) **Humidity.**

The humidity in the Seychelles often sits at 95% and the temperature at 32 degrees C. Using these two figures we can calculate air moisture and based on these figures the air moisture under these conditions would be 23%. Wooden flooring today is all kiln and dried and is mostly at 8% moisture, now if one installs a wooden floor that is 8% in a climate of 23% moisture this is a failure in the making.

2) **Air conditioners**

Air conditioners are used in all hotel bedrooms and offices all over the islands to create a better climate for humans and the humidity is so bad on the islands that sitting in an unairconditioned room would be most uncomfortable for humans, these air conditioners all create a climate opposite to humidity as air conditioners work as dehumidifiers and take humidity/moisture out of the air. It is not uncommon that if an air conditioner runs in a room permanently is a dry climate to take humidity down to 8%, while in the Seychelles I measure 95% humidity in my hotel room with the air conditioner on I was reading 45% humidity on my hygrometer. That is quite a swing as it half of the humidity outside.

In bringing these two vital points to your attention we have some chronic situations in the Seychelles and for a wooden floor to survive all this is asking a lot for the layman but now that we understand the situation better we can make recommendation to having successful installations on the islands and minimizing all risks.

At SAWLFA there are three correct methods of installation:-

- 1) Nail down on battens using correct procedures and correct nails
- 2) Elastic glue down methods
- 3) **Elastilon permanent bond Elastic mat**

Each of these methods has very specific methods of pre-installation requirements and during installation procedures, if one of these steps is not done a failure can happen and if this happens we will pick this up during an impartial opinion and hold the installer responsible for the complete failure. The first two methods are dangerous for the Seychelles and both methods restrict movement to a degree and are what we would call rigid installations, where the floor is fixed down. In the Seychelles we would run with a floating floor however it has always been technically incorrect to float a solid wooden floor as if one glues together solid wood over wide areas again it is an accident waiting to happen. This changed with the invention of the world patented Elastilon system where the floor is adhered to a self adhesive permanent bond mat BUT is not adhered to the screed/sub floor. This system is the most successful system in the world today especially in humid environments as due to the fact that the floor is floating and not attached to the screeds when expansion occurs and if the floor bursts up then the only repair is to release the pressure on the floor by cussing it back a bit and again re-opening the expansion joint, once this is done the floor will drop flat and there will be zero damage. If the floor has to burst on any of the other two recognized installation methods that are rigid and not floating then there is a failure and often a failure that is irreparable as now the floor has been under pressure before bursting and distorted and cupped each board and when it burst there is a major repair and down time in the hotel bedroom during this major failure. One Elastilon once the pressure has been released all is well again immediately

The other point now that we see your problems with wood swelling in the humidity is to stick to stable solid wooden floors as these floors are up to 70% more stable than wooden floors made from plain sawn timber. We would also suggest that all floors due to the high humidity remain as T&G and not click systems as with huge expansions from humidity this can break the click. And with the T&G floor the Elastilon best of both worlds system is used. Below I will give some suggestions in order to have failure free installations in the Seychelles:-

- 1) **ALWAYS USE ELASTILON** ON FLOORING INSTALLATIONS:-
Elastilon strong for solid wooden flooring
And
Elastilon Basic for Vertical Grain/Strandwoven Bamboo
- 2) When using bamboo ALWAYS USE EITHER STRANWOVEN OR VERTICAL GRAIN, which are hugely stable compared to the horizontal grain.

- 3) When going for solid wood ALWAYS USE ENGINEERED WITH MULTIPLY BASE and not 3 layer engineered, the more ply's the more stable the floor.

As we said earlier that now we understand your situation better we come to the conclusion that the above three points is the only way one can install failure free floors in the Seychelles. It might cost a bit more initially using the permanent bond Elastilon mat as 70% of the price of Elastilon is the adhesive as this is a permanent bond mat which gives a 70 year guarantee that the wood will not delaminate off the mat as it expands and contracts as if one used a simple stick mat again a failure will occur when the floor pops off the mat during expansion of the flooring.

Please note that I am 3rd generation in the timber industry, have 20 years in the solid wooden flooring business, am in charge of SAWLFA for the solid wooden flooring division. The above report is based on fact and years of experience and hopefully if one takes this advice it will give clients more confidence in solid wooden flooring as a finish in their villas as the ambiance it creates is unbeatable.

To make a few points at the project at Raffels I would move from horizontal bamboo to vertical grain and I was flabbergasted to hear that this floor lays loose on an underlay. What will happen to this floor in time, well the possibility is that this floor will simply come loose and fail as nothing is holding it together. It is not good enough that this floor survive and pass a mock up room inspection, which it will as it looks stunning and the workmanship is impeccable, but it needs to survive the test of time. We highly recommend on this job that this floor be changed to strandwoven or vertical grain and be installed on Elastilon.

I hope that this information is of value.

Best regards,

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