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Wood Flooring and Underfloor Heating Guide with Raised Access Floor Systems

There are very specific requirements where these installations are specified, be it an acoustic system or acoustic cradle with underfloor heating. There are several more documents in the Technical Library regarding this subject and the correct conditions for installing wood flooring.

Concrete Slabs in new Developments

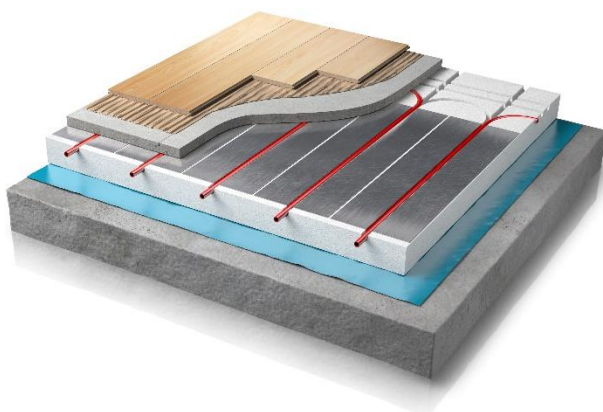
Concrete slabs will take at least 2 years to dry out and even more depending on how long they have been open to the elements before being closed up with the outer shell and infrastructure.

The fit-out programme for tower blocks no matter what height will always commence before any slab will be dry enough to introduce timber. This applies not only to timber floors but also the joinery and cabinet works.

Wood is a natural living material and will “soak” up moisture like a sponge which will distort the cell structure. This means it will never return to its original size or shape. Details on how to treat these with underfloor heating can be seen further on in this document.

Raised Access Floor Systems

These have become very popular although we prefer the **dry install system** with underfloor heating and more details can be seen below by clicking on the image.

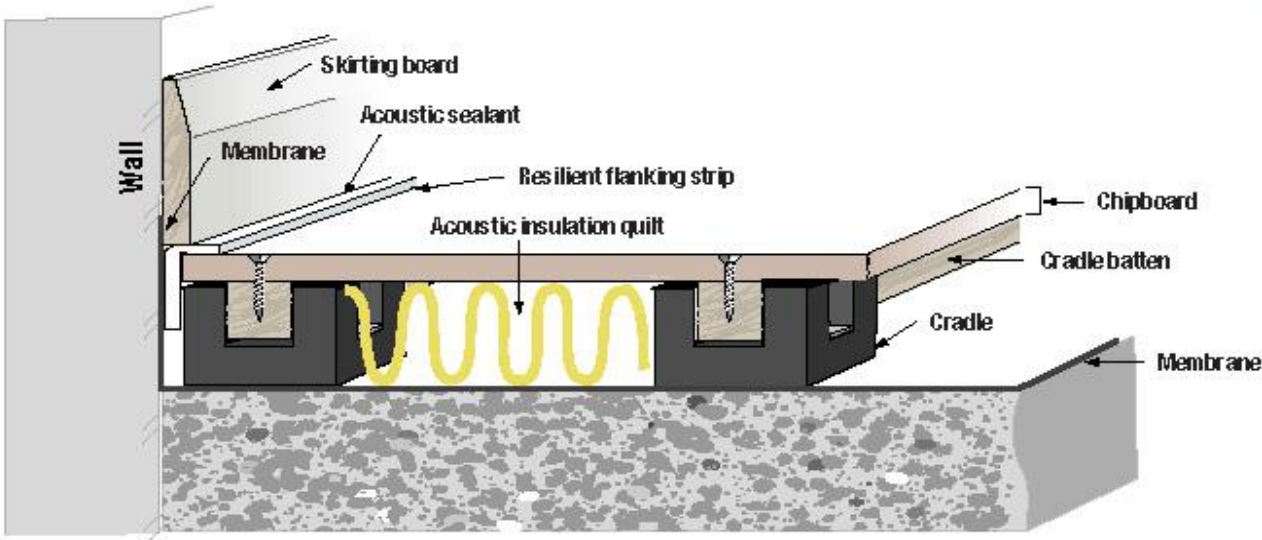


In many instances raised access panels are used even where access to services are not required. This in our opinion is pointless as a dry install system will be cheaper and easier to install and using the membrane means that a quick fit out can take place. All you need is the new Schonox self levelling compound to get the perfect flat subfloor over the slab.

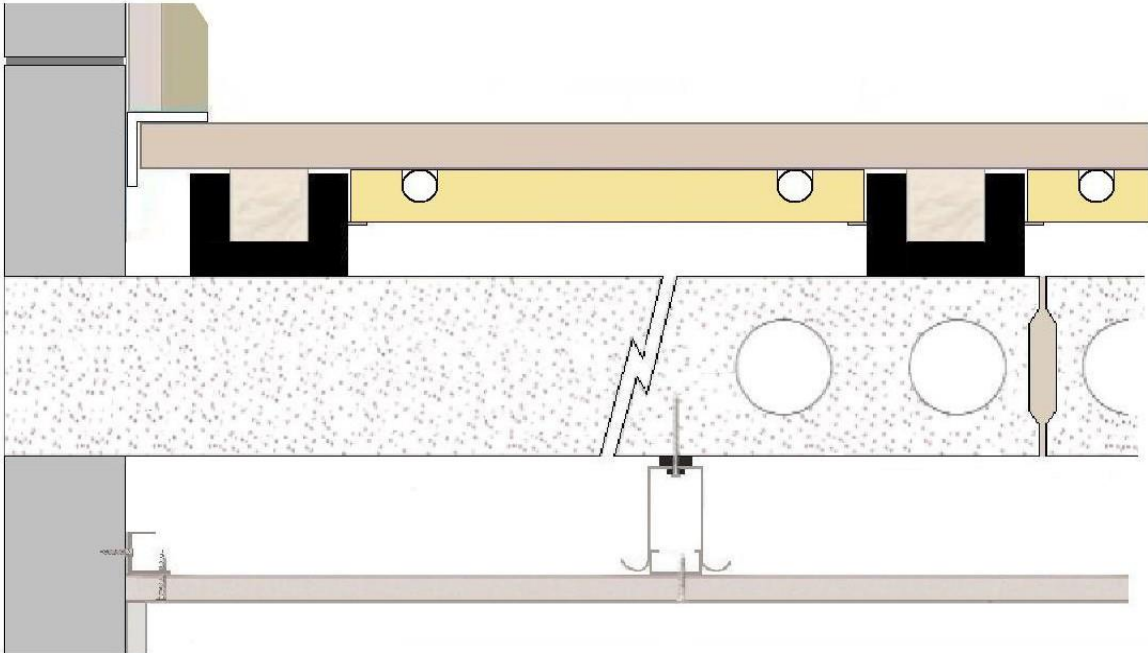


Cradle Floor Systems

The drawing below shows what should be done with a DPM membrane being placed over the concrete slab and up the sides of the wall to protect all the timber battens as well as the chipboard top and subsequent wood floor. This should fully protect with no gaps or openings for moisture to seep through.



A cradle system with underfloor heating is shown below and without a DPM membrane. If this is installed in this way and the floor is installed before the underfloor heating is commissioned, then it is a disaster waiting to happen. What will happen in this instance would be a “steam” bath under all the timber once the heating system is commissioned. The heat will “draw” the moisture out of the slab, and as we all know heat rises so the moisture will rise with it, dramatically affecting the timber battens and floor above.





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The image shown below is where there was no DPM membrane included below the cradle system and the subsequent timber did warp and delaminate the wood floor because the floor was covered and then the underfloor heating system commissioned and stress tested.

There were also no control monitors in the subfloor which meant that when the M&E guys did their stress test the surface temperature exceeded 31 degrees.



The white spots in the image show that the laitance has not been removed and the consequences of this are dramatic as can be seen by one of our documents here from the Technical Library.

[https://www.thesolidwoodflooringcompany.com/media/wysiwyg/pdf/Laitance and Anhydrite and Calcium Screeds.pdf](https://www.thesolidwoodflooringcompany.com/media/wysiwyg/pdf/Laitance%20and%20Anhydrite%20and%20Calcium%20Screeds.pdf)



Wood Floors and Underfloor Heating Installation

Acclimatisation Before fitting: Engineered wood flooring will require 14 days to acclimatise to the same conditions that they will experience in use. Storage of the cartons of wood should not be received onto site until all wet trades have been completed. The cartons should then be stored in the same conditions that they will experience in use as described in BS8201:2011.

The cartons of wood should be stored at least 50mm off the ground and supported along their whole length either on pallets or battens. The cartons should be no nearer than 500mm to any wall. The ends of the cartons should be opened to allow the air to penetrate into the boards. Before fitting.

Commission the Underfloor Heating System

The under-floor heating system should be fully commissioned and fully operational with all components in place before delivery of the wood flooring and any fitting commences. The under floor heating system should be switched off at least 48 hours before any fitting commences.

During Fitting The under-floor heating should either remain off or run at a minimum heat whilst the wood flooring is being fitted. No other trades should be allowed in the vicinity of the floor during this time.

After fitting Once all fitting has been completed the floor should be left for 24 hours before it is walked on.

Heat introduction The heating should not be switched on until 72 hours after fitting has been completed. The under floor heating should then be switched on at its lowest heat probably approximately 5°C at finished floor level. The heat should then be gradually increased by 1 - 2°C every 24 hours. THE HEAT SHOULD NEVER EXCEED 27°C AT FINISHED FLOOR LEVEL. It is recommended that monitoring devices are designed into the floor to switch the heating off automatically should the temperature exceed this.

Floor Protection and Coverings Should the floor need protecting after installation, due to other trades having to complete work or “snagging” issues **then the underfloor heating must be turned off for the complete duration until the covering has been removed.**

FLOOR PROTECTION OR FLOOR COVERING OF ANY TYPE MUST NEVER BE IN PLACE OVER ANY TIMBER FLOOR WHEN THE UNDERFLOOR HEATING IS ON WHATEVER THE TEMPERATURE.

Actions & Consequences: If the above is allowed to happen and the system was not commissioned beforehand and then turned on with the floor installed and then even with a membrane the floor and timber battens will get affected. If there is no membrane then expect WARPING, TWISTING and DELAMINATION OF ANY TIMBER.

This is because heat will start to dry out the screed, and as we know heat rises so it will be like steaming wood which is how we get curved timbers. (steam bending).

We are here to help so please call the team when specifying wood floors on 01666 504015