

## Installation of Xylo Hardwood flooring in conjunction with under floor heating

THE FOLLOWING INFORMATION IS A GENERAL GUIDE FOR HOT AIR / WATER PIPE / ELECTRICAL MATTING UNDER FLOOR HEATING SYSTEMS.

Where the under floor heating system incorporates a screed above the piping/electrical matting, the heating should be run on half load for at least 14 days after the sub floor has reached its ultimate hardness. The heating system should be ready to function at least 2 weeks prior to the installation of the flooring and then switched off 2-3 days before the flooring is fitted. The maximum moisture content of the screed should not exceed 2.0%MC at the time of installation or otherwise less than 70%RH.

Care should also be taken to ensure that the under floor heating is installed in such a manner as to not create 'hot spots' on the surface which would be detrimental to the performance of the floor covering. Where an electrical matting system is installed, provision should be given for thermostatic probes at various points across the floor area to avoid localized overheating which can cause serious damage to the flooring.

Failure to allow sufficient drying of the screed can cause numerous issues, including discoloration of the surface / opaque appearance of the surface lacquer on lacquered products.

The heating should not be operated within 48 hours of installation of the flooring.

Xylo engineered hardwood flooring is generally deemed to be suitable for use with under floor heating, however special consideration should be given to ensuring a comfortable environment for the flooring.

An excessively dry atmosphere should be avoided as this may create stress within the structure of the boards. Ideally the Relative Humidity should be maintained within the range 45% to 65% RH. This can be easily monitored with the use of an inexpensive hygrometer gauge.

Relative Humidity is a measurement of the degree to which air has the ability to hold water at a given temperature. Therefore the warm air to be found in the summer months may typically present a moisture content of 70% RH.

Damage to the construction of boards when used in conjunction with under floor heating is most commonly caused during the winter months, when the relative humidity of the air outside is low, typically 30% RH. Static shocks in the home or workplace are a common indication that the RH is too low.

In the interests of maintaining a comfortable environment for flooring throughout the winter months, consideration should be given to the provision of a humidification unit. Otherwise pot plants will assist in maintaining a reasonable level of humidity.

**With regard to the operation of the under floor heating system a rapid increase or decrease in the temperature of the under floor heating will cause discomfort to the flooring. In consequence the heating should not be turned on suddenly or the temperature of the floor raised or lowered quickly. The temperature of the system should be raised / lowered slowly - recommended 1 degree centigrade per day.**

Xylo Flooring recommend that rather than waiting for a marked drop in temperature in the winter months prior to activating the heating, that ideally the system be set low early on, then brought up to a comfortable level and run throughout the winter months at a constant temperature. This will allow the flooring to remain stable and thus avoid dimensional changes which may cause the floor to shrink, crack or delaminate. Maximum comfort for the occupants of the property will usually be achieved somewhere between 16 and 21 degrees centigrade. This is also a comfortable range for your Xylo floor.

Please note that the maximum recommended temperature for under floor heating in conjunction with Xylo Flooring products is 25 degrees centigrade (this allows for more nervous species)

There are differing schools of thought regarding the best method for the installation of engineered hardwood floors over under floor heating. On the one hand it can be argued that over larger areas, adhesion of the flooring to the sub floor with a flexible adhesive may help restrict the potential movement of the flooring. Where solid timbers are concerned there is also the question of whether or not to glue the header joints? Arguably if there is cumulative expansion this may be less noticeable if there is provision for the header joints to move apart than if they are glued together, as would be standard practice on an unheated floor.

### Directly Adhered Floors

For those who are considering an installation where the hardwood flooring is directly adhered to the sub floor, bear in mind that should the flooring need to be uplifted, the potential for the under floor heating system to become damaged or destroyed in the process is considerable. Furthermore where the pipe system is immediately below the underside of the boards, there is also greater potential for damage to the pipe work in the event of a board replacement.

### Floating Floors

When the flooring is installed as a floating floor, an underlay should be used which offers a low resistance to heat conduction, allowing maximum efficiency of the heating system. Provision should also be given to a minimum 0.2mm PE-film to act as a vapour barrier. This will often be incorporated within the construction of the underlay. The joints of this film should overlap by at least 20cm.

Gluing of the tongue & groove on T&G products must be carried out using a high quality PVA D3 adhesive. **SOLID HARDWOOD FLOORS CANNOT BE INSTALLED AS A FLOATING FLOOR.**

PLEASE NOTE - XYLO SOLID HARDWOOD FLOORING MAY ONLY BE INSTALLED OVER UNDER FLOOR HEATING SYSTEMS USING THE ELASTILON LAYING SYSTEM.

### Elastilon Installation

Elastilon can be used as an alternative method of installation for laying both solid and engineered boards over under floor heating systems. With this system the boards are effectively adhered to a floating underlay, however this type of installation should only be carried out by a professional installer who is both competent and familiar with this product. Provision of a damp proof membrane below the Elastilon system must also be provided.

For further information on Elastilon go to [www.ELASTILON.com](http://www.ELASTILON.com)

Failure to allow due consideration to the information above may result in excessive gapping, splits appearing on the wear layer of the flooring or de-lamination within the construction of the boards. Due to our inability to control either the local environment in which the flooring is installed or the manner in which the under floor heating system is operated, Xylo Flooring cannot accept any claims in this regard.

Furthermore due to the constant innovation within the under floor heating industry and the numerous systems on offer, we would advise that specific recommendations concerning all installations of hardwood flooring be sought from the respective supplier of the under floor heating system in question.