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Installation Over Underfloor Heating

Wood flooring is a natural product and will react completely and only to the environment it is subjected to. If a wood floor is to live in harmony with underfloor heating, a constant environment must be maintained.

Water-based underfloor heating systems are normally installed within one of two different screeds; **Sand and cement** or **Anhydrite/Calcium Sulphate**

Note: the installation guidelines are contrasting, so you must determine which type of sub-floor you are installing over. If you don't know, ask the sub-floor supplier/contractor for a specification.

- The maximum finished floor temperature should never exceed 27°C. **Note:** a thinner wood floor will allow easier and more cost effective heat transfer and is most efficient when fully bonded to the sub-floor.
- The underfloor heating system should be a water-based system. Electric-based systems may develop extreme temperatures when covered up.
- If gluing down, we recommend Canadia Flexifloor 920.
    - **Sand & Cement:** If a Liquid Damp Proof Membrane (LDPM) is not being used, the moisture content in the concrete should be below 3% (MC).
    - **Anhydrite/Calcium Sulphate:** The moisture content in the screed must be below 1.5% (MC), or 0.3% CM on the Tramex anhydrite scale. Don't use a LDPM over an anhydrite/calcium sulphate screed.
- If floating, Tuplex underlay must be used and the concrete moisture must be below 3% (MC). **Note:** to get an accurate moisture reading, the heating system should be off for 48hrs.
- Keeping a stable Relative Air Humidity (RH) is essential. A recommended RH of 45-65% should be maintained. It is recommended a wall hygrometer is used to ensure this can be monitored. The combination of a low RH and an excessive temperature in the screed creates a non-sustainable environment for a wood floor.
- The warm water tubing needs to be installed in a short or medium distance pattern, not exceeding a distance between the tubes of 500mm.
- To avoid damage to the sub-floor and the wooden floor, make sure that the start-up protocol of the underfloor heating is followed and respected.
- The underfloor heating system has to be installed and operating for a minimum of 7 days. During this time, it needs to be fully tested for leaks and heat transfer before installation of the wooden floor takes place.
- Prior to the installation of the wooden floor, the wood must be allowed to acclimatise in the building under normal living conditions (heating and ventilation) for a minimum of 7 days.
- Prior to the installation of the wooden floor, the underfloor heating transfer temperature must be decreased to 14-16°C. After the glue has fully cured, the heating can be turned up by 1°C per day to normal operation temperature.
- We strongly recommends using a qualified installer with experience of installation over underfloor heating systems.