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Solidfloor™

- Heating and cooling

25 years Solidfloor™ guarantee

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Earth & Fire, Bretagne, Art. 11157362

GUIDELINES UNDER FLOOR HEATING AND COOLING

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Installing a Solidfloor floor in combination with under floor heating and cooling can be easily achieved and will ensure your home is as comfortable as possible.

When installing a wooden floor in combination with under floor heating and cooling you must, however, follow a number of specific guidelines.

The Solidfloor guarantee applies to wooden floors that are installed in combination with an under floor heating or cooling system as long as the points below are observed and implemented.

The Solidfloor guarantee will not apply if the guidelines for floor heating and cooling as given in this document have not been followed and implemented.

Wood is a natural material and may warp (shrink or expand) when the temperature or humidity level changes. It is, therefore, very important that the under floor heating and cooling system is correctly operated. This will ensure that a wooden floor is not negatively influenced.

GUIDELINES FLOOR HEATING

- All floors in the Solidfloor collections, up to a maximum width of 26cm are suitable for underfloor heating. We always recommend to install a system for the recording of the humidity and temperature. We advise to install a Fidbox for this. For widths of 26cm in every room and at each 50m^2 in a room a Fidbox needs to be installed. For more information www.solidfloor.com/fidbox.

- With under floor heating using hot water: The thickness of the concrete floor screed/anhydrite floor that is poured/applied over the heating pipes must be 30mm at least.

- The prescribed heating protocol must be followed regardless of the season to achieve the allowed moisture percentage of the screed. The screed must be at least 28 days old before the under floor heating is turned on.

- The moisture percentage of the concrete screed may not be higher than 1.5% before the wooden floor is installed. This moisture percentage may not be higher than 0.3% with regard to an anhydrite floor.

- The wooden floorboards must be allowed to acclimatise for at least 48 hours in their unopened packaging in the room where they are to be installed.

- Switch off the central heating system two days before the wooden floor is to be installed. The room temperature, however, may not be lower than 18°C when the floor is installed.

- We recommend using a perforated underlay when installing a floating floor and, if gluing, use a suitable water-free adhesive. For more information consult your adhesive supplier. Nails cannot be used when installing a floor on under floor heating.

- When the wooden floor has been installed, the under floor heating can be put into operation in accordance with the prescribed heating protocol.

- In principle, the temperature of the surface of the floor has to be as low as possible. To avoid overheating of part planes you should heat the entire surface as much as possible. Up to 30% of the floor area may be covered by furniture and rugs.

- In the dry periods of the year, you must use a humidifier to keep the humidity in the room at least at 40%.

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GUIDELINES FLOOR COOLING

Regarding to floor cooling systems, it is important that an advanced control and protection system is used to prevent internal condensation (dew point control).

To prevent damage to the floor, the temperature of the incoming cooling water is not unlimited and must not come below the dew point temperature. Lower temperatures cause condensation in the floor and can cause damage to the flooring, such as dishing, deformity, swelling and opening of the seams.

A good safety system includes automatic sensors that detect when the dew point (= start of condensation) is achieved in the parquet and then switches off the cooling.

Room thermostats should never be set to a temperature lower than 24°C. In addition, the thermostat is not set to a temperature 5°C lower than the room temperature. E.g. when the room temperature 32°C, the room thermostat can't be set lower than 27°C.

For effective floor cooling, there is a maximum heat resistance of <0.09m² K/W is preferred. The heat resistance of the floors in the Solidfloor collections vary and can be higher. Keep into account a certain loss of capacity.

THE HEATING PROTOCOL DURING FIRST TIME THE SYSTEM IS USED

- The first day the under floor system temperature should be set to 20°C. The temperature must subsequently be increased by 5°C every 24 hours. The system temperature may not be higher than 45°C and the floor temperature may amount to no more than 28°C. Note: the same applies under furniture, carpets and heating pipes. This maximum temperature must be maintained for a few days. It is important to know the thickness of the screed to be able to calculate the exact number of days. If the screed is 5cm thick, this means that you must maintain the maximum temperature for 5 days. The number of days is, therefore, the same as the number of centimetres that your floor is thick.

- The procedure must be followed in the reverse order when the system is switched off. Recommendation: do not set the thermostat to a low level in the evening and again to a high level in the morning to ensure temperature fluctuations are avoided as much as possible.

- The total procedure will take approximately 14 days. During this procedure, ensure that there is good ventilation in all the rooms so that any moisture that is released can be properly discharged.

HUMIDITY

Wood is a natural product and reacts to the conditions of the room in which it is installed. Shrinkage or cracking can occur when the humidity is too low. The best condition for a wooden floor is a relative air humidity of between 40% and 65%. Shrinkage may occur when the relative air humidity is lower making the use of a humidifier a requirement. Despite these measures, there is a small chance that gaps, cracks or checks may occur when under floor heating is used especially in the winter, or when the relative air humidity is low.

Beech, Ash, Maple and Jatoba are wood types that easily warp and, therefore, are not recommended for use in combination with under floor heating or cooling. The Solidfloor guarantee will not apply when these wood types are installed in combination with under floor heating or cooling.

Note:

A wooden floor may not be installed on under floor heating systems that have been installed before 1990. These systems, generally, produce temperatures that are too high. Ensure that you know that your under floor heating system is suitable for use in combination with wooden floors.