

# Parquet

## Underfloor heating installation

### Installation on low temperature heating floors

#### Parquet and floor heating system

How to choose a product and appropriate specie ?

Some products are more sensitive to deformation than others. In the same conditions and for the same width, one strip products can have a bigger deformation than 3 strips. The thinner the products are, the bigger the deformation is.

The thermal resistance must be less than 0.15 m<sup>2</sup>K/W.

All the BerryAlloc's ranges are suitable with floor heating system.

Some high reactive species as Beech, Maple and Jatoba are not recommended on floor heating system.

There are in France some rules that must be observed (DTU 51.2 about Parquet to be glued) and also glue supplier instructions.

#### Type of laying.

For this type of installation, it is strongly recommended to glue down the whole hardwood surface.

The floating installation can affect the efficiency of the heating system (air space, underlay will reduce the heating performance).

#### In renovation:

It is not permitted to lay parquet on a heating system installed before 1990, because of the risks of too high temperature rising.

The lack of regulation has for consequence of the important thermal shocks and a destabilization of the parquet plywood (types of hydraulic and electric plant).

#### Reminder before implementation:

Drying of the screed is of 15 days per centimetre thick, increased by 50% in wet conditions.

According to the DTU 65.6.7 and 8

- The thickness of the substrate above the pipes water circulation must be a minimum of 30mm.
- The initiation of the heating should be done at least 3 weeks prior to the installation, with ventilation facilities to evacuate moisture cleared.
- The heater must be stopped 48 hours before installation, and for the duration of insertion.
- Initiate the heating system 3 to 4 days after laying in increments of 5 °C to achieve progressively the temperature up to 28 °C surface.

#### Precautions for implementation:

- The screed must have a moisture content not exceeding 2% and 0.5% for the screeds of anhydrite, i.e. a minimum of 8 weeks of drying +(2 weeks per cm thick).
- After this time, and whatever the season, the natural drying of support must be complemented with a heating initiation of at least 3 weeks prior to the installation of parquet.
- It is necessary, at the end of this period, to check the complete drying of the screed, by, for example, disposing on the ground 1m<sup>2</sup> of polyethylene film, it is a good indicator: if the condensation appears after 24 hours, continue drying. Or by using the official method of calcium carbide test.
- Stop heating least 48 hours prior to the installation, during the time of the installation in the room well ventilated.
- Put on gradually the heating system 3 to 4 days after laying to gradually reach a temperature not exceeding 28 °C on the ground.

#### Installing a parquet on floor heating system:

- Glued down: with non water base glue (type Lignobon bi-component polyurethane / ratios 900 to 1000 grams per square metre, depending on the manufacturer's data sheet)

In any case, during installation, do not forget to provide a point of expansion of about 10 to 12mm at the periphery of the room.

#### Cases of Floor Heating/Refreshing or Reversible:

According to DTU 65.8

For water flowing through the pipes at a temperature of 18 °C to 22 °C, thermal resistance R shall not exceed 0.09 m<sup>2</sup> °K / W. This applies to the installation of parquet glued down.

Other constraints exist, which is why it is recommended to use massive parquet, knowing that a case-by-case must be carried out beforehand.

#### Cases of Electrical Floor Heating

We don't recommend the laying of parquet on this type of heating system because hot spots can cause serious disturbances on the floor, the temperature could rise far over the limits tolerated by the parquets disturbances.