BerryAlloc laminate floors can be installed on underfloor heating and/or cooling, but some important remarks have to be considered to protect the floor and to have the best result of the heating system.

BerryAlloc laminate floors are compatible with electrical and waterborne systems embedded in the subfloor. When the system is installed on top of the subfloor special guidelines apply, see below.

For the installation of BerryAlloc laminate floors on a subfloor with underfloor heating, our general installation instructions still apply. In addition to the general instructions, the following specific instructions apply to underfloor heating.

1. What to know before the installation

The thermal resistance of the complete assembly on top of the underfloor heating system should not exceed **0,15 m²W/K.**

Overview of the thermal resistance values of laminate combined with various underlays in m² K/W:

Floor thickness	Excellence Plus	FoldTec Plus	Excellence Go 60	Excellence Impact+
8 mm	0.08	0.11	0.10	0.11
12 mm	0.12	0.15	0.14	0.15

The capacity of the heating elements must not exceed **90 W/m²** (electrical heating systems).

The surface temperature of BerryAlloc laminate floors must never exceed **27 °C (80 °F).** This also applies to areas next to existing radiators, under furniture and carpets, etc. Thick rugs may block the heat and cause high temperatures.

A floor sensor or IR-sensor for constant measurement of the surface temperature is recommended.

If only part of the area has underfloor heating and the floor continues in areas without underfloor heating, or when there are multiple underfloor heating circuits that could be used separately, these areas always have to be separated by T-profiles. The heated and non-heated areas will react differently due to variation in surface temperature (which increases the risk of openings and squareness deviation).

For a floating installation with underfloor heating it is necessary to install a moisture barrier (ageing resistant PE-foil, thickness 0,2 mm) to prevent any condensation damage to the BerryAlloc laminate floors. For glued installation this is not required.

Note : When installing a moisture barrier on top of a wooden subfloor construction remember not to lock in moisture in the floor construction (leave a gap of roughly 10 cm to all walls for ventilation of the subfloor).

Waterborne underfloor heating

Note : Extra precautions should be taken to ensure that the feeding temperature of the hot water never exceeds the maximum level to make sure the surface temperature stays below 27°C (80°F), and that installation instructions provided by the supplier of the underfloor heating system are followed correctly.

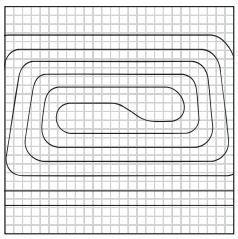
A. Underfloor heating wet systems

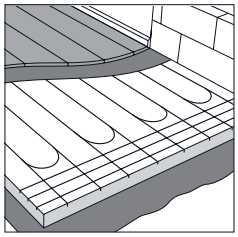
For floating installation, where the heating pipes are covered with concrete or screed, a moisture barrier and an underlay are required under the laminate flooring.



B. Underfloor heating dry systems

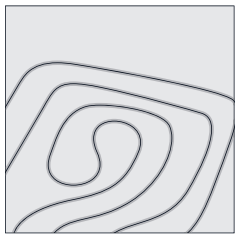
Track boards (chipboards/XPS-boards with preformed grooves) in combination with aluminium heat distribution plates used in waterborne constructions, can often cause squeaking noises in the subfloor. To reduce the possibility of squeaking or movement of the system, pressure distribution boards are required (e.g. gypsum board 13 mm or gypsum fibreboard 10 mm) on top of the construction, before installing the moisture barrier, the underlay and the BerryAlloc laminate flooring. This will in addition result in an evenly spread heat and give free choice of installation direction (check the thermal resistance of the full system in advance).





C. Underfloor heating milled

In this system, mostly used during renovation, where grooves are milled into the screed or concrete subfloor for the hot water heating pipes, a levelling prior to installing the BerryAlloc laminate flooring is required, to avoid that planks joints are placed just above milled grooves and not being supported.



laminate.

Waterborne underfloor heating and cooling

Systems that combine both underfloor heating and cooling need special attention because of the risk of condensation, which could cause damage to the floor. If the cooling water temperature drops below the so called dew point, this could cause condensation under the flooring which can lead to mould or swelling, opening, distortion and warping of the floor.

To protect the quality of the laminate flooring and to ensure that the warranty remains valid, make sure that :

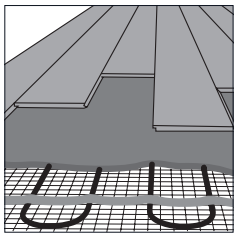
- the thermal resistance above the heating/cooling system shall not exceed 0,13 m^2K/W, with the resistance of the floor covering limited to 0,09 m^2K/W, and that of the subfloor itself limited to 0,04 m^2K/W
- the water temperature never goes below 18 °C (64 °F)
- the temperature difference between the floor and the surroundings is limited to 5 °C (9 °F)
- the cooling system is equipped with an automatic anti-condensation control system that adjusts the temperature of the ingoing water

Always ask the supplier of the heating/cooling system if it is compatible with BerryAlloc laminate flooring and if they are able to meet all the necessary requirements prior to installation!

Electric underfloor heating

A. Heating cables

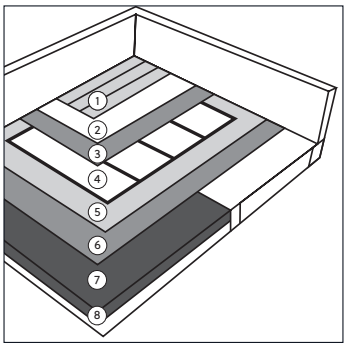
When installing BerryAlloc laminate flooring on top of electric cables, a suitable levelling compound has to be used, on which BerryAlloc DPL can be installed, following our general installation instructions.



B. Heating foil with insulation boards

When installing BerryAlloc laminate flooring, any insulation boards used under the heating foil must have a compressive strength (CS) of min. 300 kPa* (according to EN 16354:2018).

1. Direct Pressure Laminate
2. Underlay
3. Moisture barrier 0,2 mm
4. Heating foil
5. Insulation board (CS > 300kPa* -th. > 5mm)
6. Moisture barrier 0,2 mm
7. Subfloor (screed or wooden construction)
8. Subfloor insulation
- Floor temperature sensor



Note : in all cases, the standards and installation rules of the manufacturer of the electric heating system must be respected.
*min. 700kPa for herringbone products.

2. Preparations

The subfloor must be dry :

- Concrete and light concrete subfloors should have a max. of 1,8% according to CM method (RH <75 %.)
- Plaster based (anhydrite) subflooring maximum 0,3% according to CM method
- Always record and keep the moisture content results.

Install a moisture barrier according to the instructions above and install the BerryAlloc laminate flooring (with the necessary expansion gaps) according to the installation instructions.

3. After the installation

When the installation of the BerryAlloc laminate flooring is finished, or if the underfloor heating system has been turned off for a long period of time, consider that :

- The first week the underfloor heating system must be set on a low temperature 18-22 °C (64-72 °F)
- During the following week the temperature can gradually be increased

Note : A too fast heating-up process may cause irreversible damage to the floor.

For electrical floor heating, leave clearance of at least 3 cm between any furnishings and the floor. Using floormats or rugs or any other item that causes an obstacle to the evacuation of the heat generated by this type of heating is prohibited.

The floor is now ready for underfloor heating/floor cooling.

Enjoy the comfort of your BerryAlloc laminate flooring!