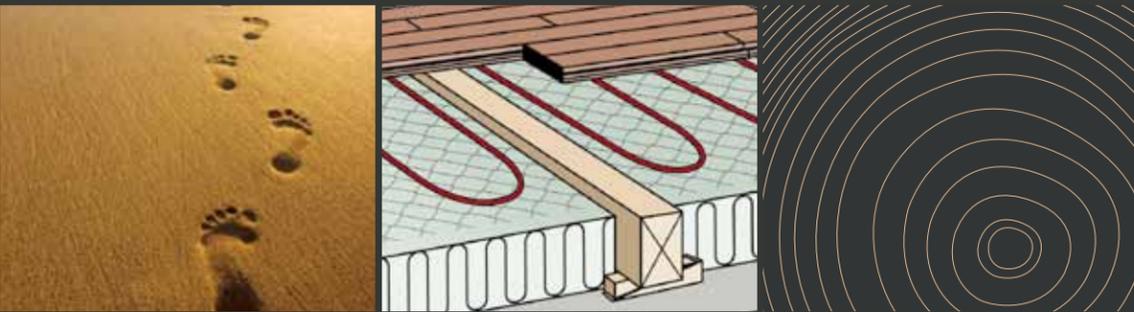


Since 1961, Junckers has installed more than 10 million square metres of hardwood flooring in the UK and Ireland alone. Often imitated but never bettered, Junckers' expertise stems from a unique heritage of producing high quality solid flooring solutions. The combination of excellent craftsmanship and cutting edge design gives our extensive product portfolio a pedigree unmatched elsewhere.

If you would like more information concerning our products, advice on installation and maintenance, please call us on UK: 01376 534700, Ireland: 1 800 523 138. Alternatively, visit www.junckers.co.uk



JUNCKERS — IDEAL WITH UNDERFLOOR HEATING



JUNCKERS SOLID WOODEN FLOORS – THE KEY TO A COMFORTABLE INDOOR CLIMATE

Today, underfloor heating is more popular than ever before. This is because it is not only a comfortable solution to home heating, but also because it is increasingly cost-effective. Modern buildings are very well insulated, and this means that underfloor heating systems can maintain a comfortable indoor climate while operating at lower temperatures.

Wood has a natural innate warmth, and unlike most tiles and ceramics it is warm and comfortable whether the heating system is switched on or off. This makes Junckers solid hardwood flooring the ideal surface for underfloor heating.



Oak Stripboard



Jatoba Stripboard



Merbau Stripboard



Ash

JUNCKERS AND UNDERFLOOR HEATING

There is more than 75 years experience and expertise in a Junckers floor. Here are some of the factors that make Junckers the preferred choice for the installation of underfloor heating systems.

Junckers' floors are firm and stable due to the controlled low moisture content of our pre-finished floorboards.

All our products are tested with the leading manufacturers of underfloor heating systems.

Junckers' flooring is suitable for installation in both new buildings and renovation projects.

Junckers' unique clip system allows boards to be swiftly fitted directly onto screeded subfloors containing underfloor heating pipes.

Junckers' batten systems can also be used in conjunction with underfloor heating systems.

Junckers flooring is adaptable and can be installed in almost any setting, and adjusted to most underfloor heating systems. Junckers' floors are suited to both electric or hot water systems.

Junckers wood strip floors are available in 14 and 22 mm thicknesses while wide boards are available in 20.5 mm.



Nordic Beech
Stripboard



Oak Stripboard



Black Oak Wide Board



Oak

INSTALLING ON ELECTRIC HEATING SYSTEMS

Installing a floor on electric heating systems adds little to the overall height of the floor. This makes installation easy and ideal for renovation projects. Typically the electrical mat is encased within a 6 mm layer of a cementitious material onto which the Junckers floor is fitted. This gives a total height of only 10 mm for the heating system.



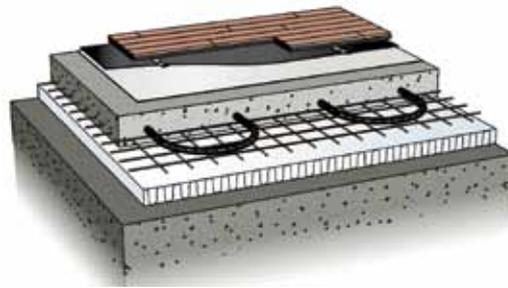
Wood floor with electric heating on existing concrete floor

Where the height of the floor is less of an issue, electric heating cables are covered with a 30 mm layer of screed onto which the floor can be fitted.

In both cases the Junckers floors are fitted using the unique clip system as a floating floor.

The heat cable mats should have a maximum output of 100 W/m².

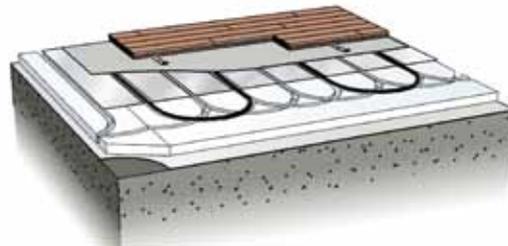
Wiring of the electric systems to an electric thermostat or other installations should only be undertaken by an authorised electrician.



Water based system with heating pipes encased in concrete

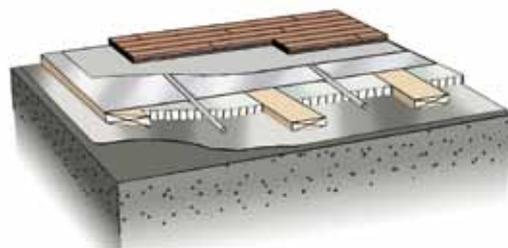
INSTALLING ON HOT WATER SYSTEMS

The most common form of underfloor heating uses hot water pipes either contained within a screed or polystyrene insulation, or installed within a batten construction. The Junckers floating clip system is used over screeded or polystyrene bases whereas with batten systems the Junckers boards are secretly nailed.



Water based system with heating pipes and heat distribution plates within flooring grade polystyrene

Floor heating systems using hot water are fitted with automatic room sensors. These detect temperature increases caused by direct sunlight or other heat sources, which are then balanced by the thermostat.



Water based system with heating pipes and heat distribution plates on batten construction

The water-based system should always be tested for pressure before connection, and should be connected only by an authorised plumber.

CONTROLLING HEAT DISTRIBUTION

As hardwood expands and contracts with changes in moisture content, it is important that both electrical and hot water systems create an even heat distribution across the entire floor, as well as a controlled surface temperature on the surface of the board of no more than 27 degrees C.

With water based systems involving battens, heat distribution plates are used to ensure this even heat distribution. Cardboard insulation (500 g/m²) is fitted between the distribution plates and the floorboards to avoid noise caused by any movement between them. Systems contained within polystyrene also use heat distribution plates. The insulation material used must have a density of 30 kg/m³ or more.

In general, electrical under floor heating systems are embedded within a floor screed or if placed over a sub-floor, then covered with a suitable levelling

compound. There are some heating systems where this is not a requirement, please consult Junckers Technical Department for further advice.

In electric heating systems, a thermostat with floor sensors is fitted to ensure that the maximum surface temperature doesn't exceed 27 degrees C. The sensor is fitted in the screed inside a plastic pipe.

The temperature should always be adjusted slowly in order to allow the wood to naturally expand or contract. It is quite normal to see slight gaps between the floorboards in the heating season. However these gaps will close in the summer months.

PLANNING INSTALLATION

Installation of Junckers' floors should proceed when the temperature and relative humidity of the building resembles the expected future climatic conditions, for instance 35-65%RH. The heating system must have been in operation for an adequate period of time before the floor is laid. During this time the room should be ventilated regularly.

On screeded subfloors containing hot water pipes or electrical cables, the Junckers floor is usually installed with Junckers' unique clip system. A 1000g moisture membrane is needed in addition to the Junckers Polylay underlay. It is important to ensure that the moisture content of the screed is no more than 75%RH.

Note: If glueing the Junckers boards down to a screed containing underfloor heating, the moisture content of the subfloor must not exceed 65%RH.

For more detailed information consult the Junckers Technical Information sheets E4.0, E4.1, E4.2 and E4.3.