

Kährs®

QUALITY IN WOOD SINCE 1857

UNDERFLOOR HEATING

SPECIAL INSTRUCTIONS

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RADIANT HEAT APPLICATIONS, FLOAT-IN ONLY

General

Wood floors and underfloor heating are often combined nowadays and work well together. The heating system used – electrical or water – is of no significance to the wood floor. The underfloor heating system must deliver no more than 80 W/m² evenly distributed. The surface temperature of the floor must never exceed 81°F. This applies even next to/above radiator pipes, above pipe runs and under carpets, furniture etc.

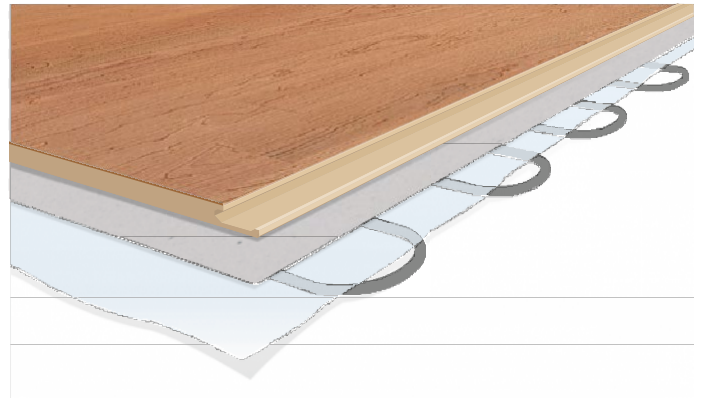
In a standard insulated house, with a properly functioning underfloor heating system, the temperature of the floor surface is generally 2°C higher than the room temperature. In a warm water underfloor heating system, the flow temperature is usually 7–12°C higher than the floor's surface temperature.

↓ The installation instructions for each type of floor also apply to installation over underfloor heating. This section discusses issues particular to wood floors over underfloor heating.

Specific requirements for wood floors over underfloor heating:

- The floor construction must have a heat-distributing layer that gives a very even temperature across the entire floor area, in order to avoid excessive temperatures near the heat source.
- The entire living area must be heated. However, this does not apply to comfort heating systems, which complement the normal heating. The temperature in this case is significantly lower than the permitted 81°F at the floor surface.
- The floor covering (including intermediate layer) should have a low thermal conductivity.
- It must be possible to control and limit the surface temperature very accurately.
- Moisture content of lightweight concrete subfloor must not exceed 2lbs. on a dry-weight basis at time of flooring installation (calcium chloride test).
- Concrete must have been installed and cured at least four (4) weeks with no heat transference.
- Heating system should then be run at 2/3 maximum output for minimum of two (2) weeks to allow any remaining moisture to evaporate, attaining its final moisture content without causing damage.
- Three or four days before flooring installation, heating system must be reduced to suitable temperature (about 64° F or 18° C).
- The installed floor's temperature must never exceed 81°F. This also applies under carpets and furniture.
- A vapor barrier must be built into the floor construction. This should be as close to the wood floor as possible. It is particularly important that the vapor barrier is close to the wood floor if the structural floor is thick or heavy. Under no circumstances must the vapor barrier be on the opposite side of the structural floor.
- The wood floor must lie tightly to the substrate, without air gaps that may cause substantial drying of the wood.
- Provided the conditions above are met, both warm water and electrical underfloor heating systems are suitable for use with Kährs wood floors.

Note: Thick rugs, etc., can result in damaging high temperatures in the wood floor.



INSTALLATION: FLOAT-IN ONLY !

Floating installations require the use of Kährs Combo or Eco+ underlayment. QuietStride underlayment needs to be installed over 6 mil plastic. These products are warranty approved for Radiant Heat installations.

Hard Maple (Canadian Maple) and Beech floors expand and contract more than other species. Kährs does not recommend the use of Beech or Maple over Radiant Heat.

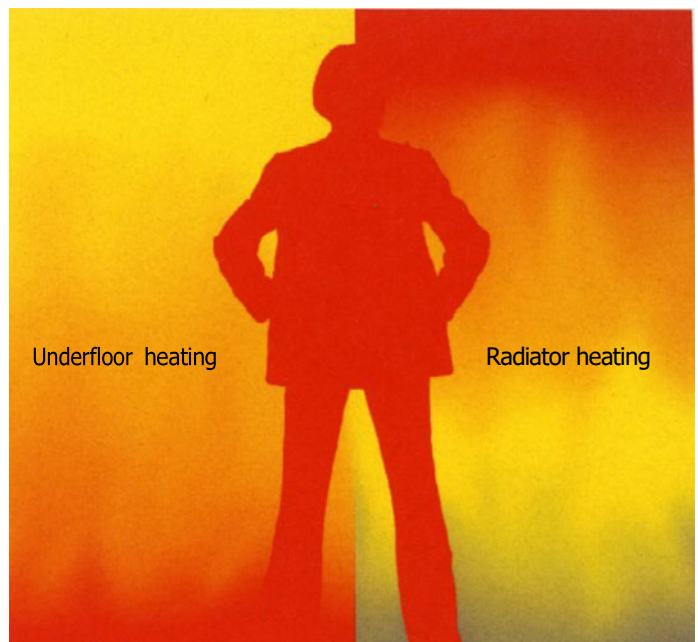
R-VALUE:

Kährs Original 15mm	1.15R
Kährs Avanti 13mm	1.12R
Kährs Life 7mm	.34R
Combo System Underlay	.39R
QuietStride Underlay	.40R

AFTER INSTALLATION

Beginning approximately two (2) days after installation is complete, gradually (over period of one week) raise temperature of heating system to its desired operating level.

Surface temperature must never exceed 81° F (27° C).



Underfloor heating gives the ideal distribution of heat within a living space.