

SECTION III

SPECIAL INSTALLATION REQUIREMENTS

CHAPTER 8

RADIANT HEAT INSTALLATIONS

With radiant heat, the heat source is directly beneath the flooring, so the flooring may dry out faster than a similar floor in a home with a conventional heating system. Wood flooring can be installed over radiant heat as long as you understand radiant heat and how it can impact wood flooring, what precautions to take, and what type of wood flooring to use.

Types of wood flooring that are best suited for radiant heat subfloor are products that possesses improved dimensional stability such as:

Engineered Wood Flooring - is more dimensionally stable than solid wood flooring.

Certain Species are known for their inherent dimensional stability such as American cherry, American walnut, teak and others. Other species such as maple and Brazilian cherry are less stable.

Quartersawn and Rift Sawn Wood Flooring - is more dimensionally stable in width than plain sawn wood flooring.

Narrow boards are more dimensionally stable than wider boards. Solid plank wood flooring 4 inches and wider is not recommended over radiant heat.

GENERAL RADIANT HEAT INSTALLATION GUIDELINES

To minimize the effect that rapid changes in temperature will have on the moisture content of the wood floor, it is recommended that an outside thermostat be installed. If one is not present, suggest to your customer that this should be considered. Unlike conventional heating systems whereby when it becomes cold, the heat is switched on, the radiant systems work most effectively and with less trauma to the wood floor if the heating process is gradual, based on small increment-increases in relation to the outside temperature.

Subfloors should have proper moisture tests according to Moisture Test Procedure in Section V, AA and AB. Refer to Section V, AD and AE.

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The essential requirement in proper applications of wood flooring over radiant heated systems is to avoid penetration of the heating element. Radiant heated subfloor systems can be concrete, wood or a combination of both. The type of subfloor as described in the previous chapters determines subfloor preparation.

If the subfloor is concrete and it has cured, turn the heat on, regardless of season, and leave it on for at least 5-6 days before installation of the wood flooring to drive out residual moisture. Some installation systems, particularly glue down applications, require the heat to be reduced or even turned off before installation of the flooring begins.

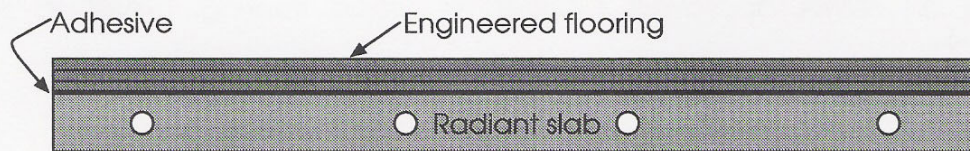
With water heated radiant systems a pressure test must be performed by a qualified plumber or the system installer prior to beginning the installation of the wood flooring. The following installation and subfloors systems can be used successfully over radiant heat:

1. Glue down, engineered or solid parquet
2. Direct nail, solid wood or engineered wood flooring to wood subfloor
3. Solid T & G floor direct nail to sleepers
4. Single layer of plywood on sleepers
5. Double plywood floating subfloor
6. Floating engineered
7. Loose lay single layer of cdx plywood cut in 16" planks staggered, with 1/8" gap between laid perpendicular to wood direction.

NOTE: Follow manufacturers' printed installation instructions.

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GLUE DOWN ENGINEERED OR SOLID PARQUET



Install over approved subfloor - refer to Section II, Engineered Floor or Section II, Solid Parquet Floor.

Can be glued direct to approved subfloor. Always check for subfloor moisture. See Appendix AA.

The heating system has to be turned off before installation.

Use adhesive approved by the manufacturer.

Maximum surface temperature - 85 degrees F (29.44 degrees C).

Expect some heating season shrinkage.

NOTE: Follow manufacturers' printed installation instructions.

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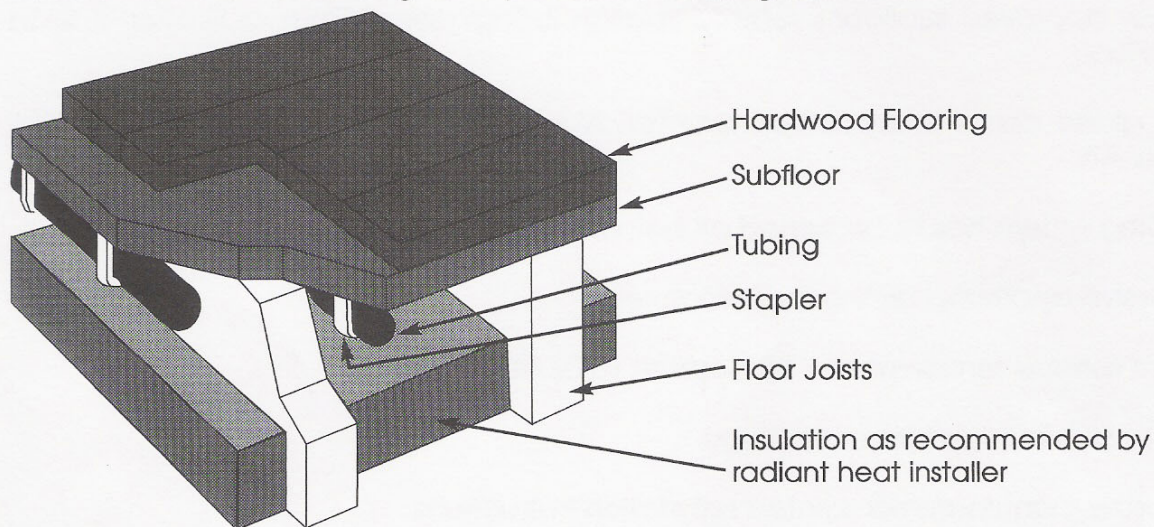
DIRECT NAIL, SOLID WOOD OR ENGINEERED TO WOOD SUBFLOOR

Must have an NWFA approved subfloor for wood flooring. (Refer to Section II, CHAPTER 4-6.

Always check for subfloor moisture. See Appendix AB.

Solid wood must be properly acclimated to normal living conditions.

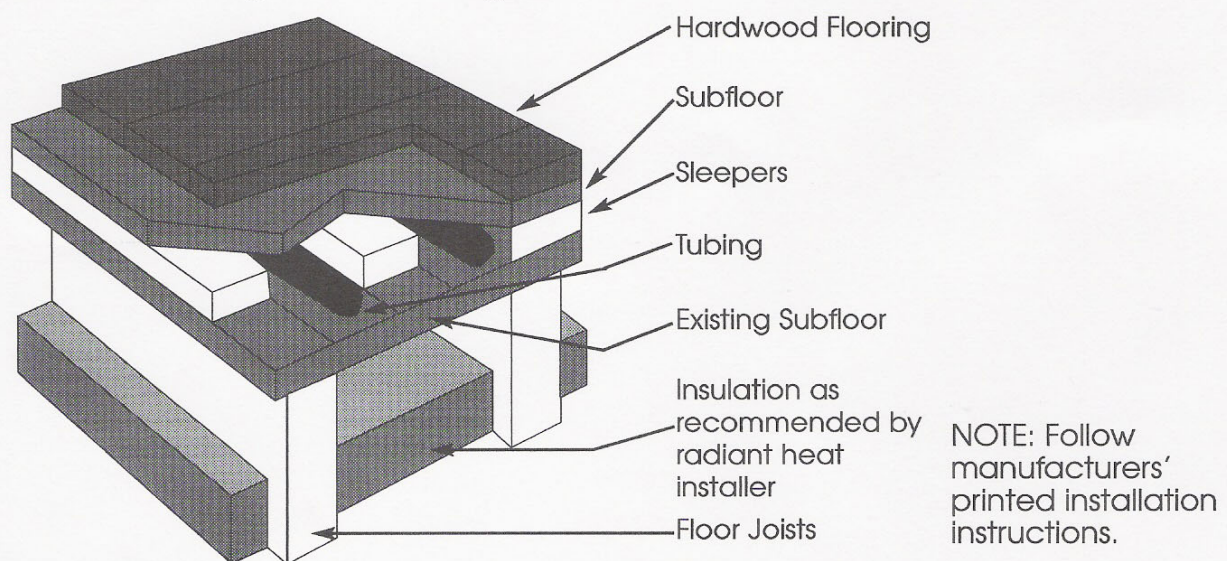
Be sure nails are not so long as to penetrate heating elements.



All other installation procedures are the same as outlined in Section II, Chapter 4-6.

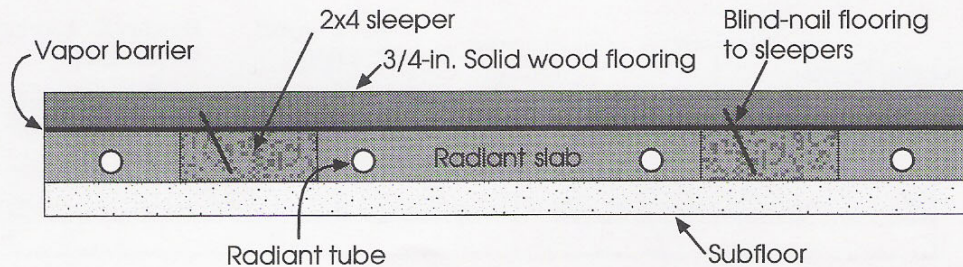
Maximum surface temperature - 85 degrees F (29.44 degrees C).

Expect some heating season shrinkage.



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SOLID T & G FLOOR DIRECT TO SLEEPER



Must follow the installation guidelines for installation over screed systems as outlined in Section II, Chapter 5-6.

If over suspended subfloor, a vapor retarder may not be necessary.

The use of solid plank 4 inches and wider is not recommended over radiant heated systems.

Solid wood must be properly acclimated.

Cannot use shorts.

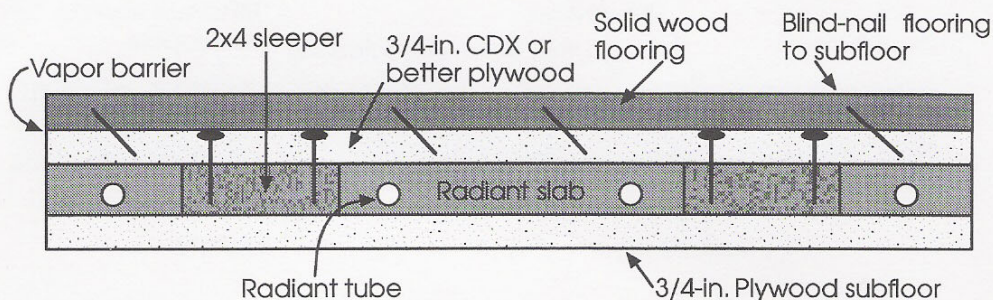
Maximum surface temperature - 85 degrees F (29.44 degrees C).

Expect some heating season shrinkage.

NOTE: Follow manufacturers' printed installation instructions.

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SINGLE LAYER OF PLYWOOD ON SLEEPER



Must follow the installation guidelines for installation of plywood on sleepers systems as outlined in Section II, Chapter 5-6.

If over suspended subfloor, a vapor retarder may not be necessary.

The use of solid plank 4 inches and wider is not recommended over radiant heated systems.

Solid wood must be properly acclimated.

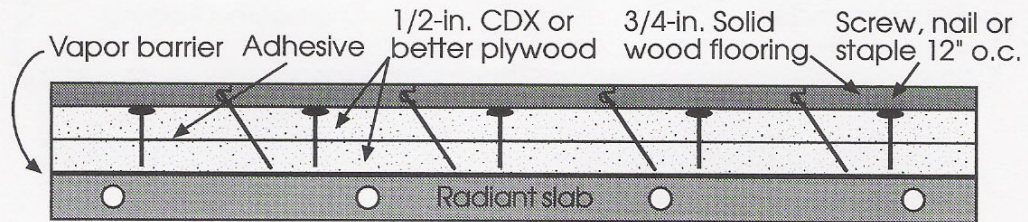
Maximum surface temperature - 85 degrees F (29.44 degrees C).

Expect some heating season shrinkage.

NOTE: Follow manufacturers' printed installation instructions.

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DOUBLE PLYWOOD



Must follow the installation guidelines for installation of floated subfloor as outlined in Section II, Chapter 3-6.

The use of solid plank 4 inches and wider is not recommended over radiant heated systems.

Solid wood must be properly acclimated.

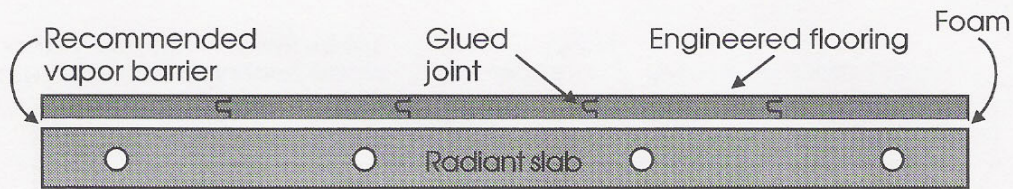
Maximum surface temperature - 85 degrees F (29.44 degrees C).

Expect some heating season shrinkage.

NOTE: Follow manufacturers' printed installation instructions.

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FLOATING ENGINEERED



Install over approved subfloor. Refer to section II Engineered-Unfinished/Prefinished/Impregnated. Always check for subfloor moisture. See section AA.

A 6 mil or better polyethylene vapor barrier should be installed over concrete sub-floors.

A recommended foam or resilient underlayment must be installed prior to application of the wood flooring.

Use an adhesive approved by the manufacturer for side and/or end joints.

Maximum surface temperature-85 degrees F (29.44 degrees C).

NOTE: Follow manufacturers' printed installation instructions.