

All Nydree Engineered Flooring Products Installation Hydronic Radiant Heated Subfloors

The use of Nydree Flooring should be carefully considered when heating systems, primarily residential, include hydronic radiant heat. All Nydree Engineered Flooring can be successfully used over hydronic radiant heating systems provided the following instructions are followed. Maxxon Therma-Floor radiant heating system is an acceptable subfloor.

As per The Hardwood Council and other hardwood associations, the following factors require special attention <u>before</u>, <u>during</u>, and <u>after</u> installation over hydronic radiant heat.

- Floor Temperature
- Subfloor Specification
- Heating Tube Installation
- Climate Controls

The maximum allowable subfloor surface temperature is 85 $^{\circ}$ F (29.4 $^{\circ}$ C) The maximum boiler temperature is 110 $^{\circ}$ F (43 $^{\circ}$ C)

Subfloor is usually either plywood (plywood on sleepers, plywood on concrete) or concrete. The heating tubes are typically laid out on the subfloor and encased in self-leveling concrete underlayment. All existing concrete subfloors should be dry and tested for moisture content (Calcium Chloride or in-situ Relative Humidity) prior to encasing hydronic heating tubes.

After the encasing self-leveling concrete has fully cured, the hydronic radiant heating system should be turned on and operational at least one week prior to installation, regardless of the season. This will help drive out any excess residual moisture in the slab or subfloor before the flooring is installed. Make sure there are no leaks in the system that could damage the flooring. Four hours prior to starting flooring installation the heating system must be turned off so the adhesive doesn't cure too quickly. After installation is completed, the hydronic radiant heat system can be turned back on after 72 hours. Follow Nydree flooring installation instructions using SB1587 adhesive.

Wood flooring is an insulator, and therefore, restricts normal heat conduction. The designed heating efficiency cannot be fully realized. The operating cost will be higher, and the room may not feel "warm enough" with the flooring at 85 $^{\circ}$ F (29.4 $^{\circ}$ C). In cold climates, we recommend a supplemental heating source.

It is expected that there will be slight separations between planks during the heating season. It is also expected that slight surface checking (cracking) can occur in installations over hydronic radiant heat. Both of these situations are not considered product failure. It is important that the relative humidity be maintained between 30 and 55% when radiant heating is used to prevent splitting and gapping of the flooring.

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