LOGS END

# INSTALLATION OVER RADIANT HEAT GUIDE

## GLUE DOWN INSTALLATION ONLY

# MOISTURE & HUMIDITY

**BEFORE INSTALLATION, PLEASE TAKE NOTE OF THE FOLLOWING**

When using radiant heat, the heat source is located directly beneath the flooring, which can lead to the flooring drying out more quickly than it would in a space with conventional heating. Wood flooring can be installed over radiant heat, but it is important to understand how radiant heat affects wood and what precautions are necessary, as well as what types of wood flooring are best suited for this environment.

The types of wood flooring that are ideal for radiant heat systems tend to be those with greater dimensional stability, such as:

- **Engineered wood flooring**: Offers better dimensional stability compared to solid wood flooring.
- **Certain wood species**: North American oak is naturally more dimensionally stable, whereas denser woods like Hard Maple & Hickory tend to be less stable.
- **Quartersawn, rift-sawn, and live sawn wood flooring**: More stable in terms of width expansion compared to plain sawn wood.
- **Narrower boards**: They generally expand and contract less than wider boards.

**Reminder:** When installing wood flooring over radiant heat, use BONA Quantum R-851 wood flooring adhesive for a proper installation.

Please be advised that Logs End will not be held responsible for any site conditions.

# GENERAL RADIANT HEAT INSTALLATION GUIDELINES

**Temperature Control and Gradual Heating**
To minimize the impact of rapid temperature changes on your wood flooring, Logs End recommends installing an outdoor thermostat. Unlike conventional heating systems, which turn on when needed, radiant systems work more effectively with a gradual heating process. This incremental temperature adjustment helps reduce stress on the wood flooring.

**Temperature Probes for Surface Regulation**
To ensure the subfloor and wood flooring surface temperatures do not exceed 29°C (85°F), install temperature probes within the subfloor structure to monitor and regulate heat. These probes should be placed in each room or heating zone.

**Moisture Testing and Subfloor Preparation**
Subfloors must undergo proper moisture testing. The goal is to ensure the subfloor's moisture content is suitable before wood flooring installation begins. This avoids penetrating the radiant heating system during the process.

**Recommended Radiant Heat Systems**
We advise using a water-heated radiant-heat system set into a screed or an electric system set into a high-strength leveling compound beneath the wood flooring. Heating pipes should be covered with at least 30mm (1¼ inches) of concrete, and electric systems require 10mm coverage of a high-strength leveling compound.

**We do not recommend electric blankets or water pipes on top of screeds or between joists/battens unless a heat distribution board is installed above to ensure uniform heat transfer to the engineered wood boards.**

**Preparation for Concrete Subfloors**
If the subfloor is concrete, it must cure properly. Gradually turn the heat on, regardless of the season, raising the temperature over 14 days to 2/3rds of its maximum capacity to drive out residual moisture. Midway through these 14 days, the heat should be turned up to its maximum for 2 days. Then reduce and turn off the heat, allowing the subfloor to reach 20°C (68°F) before installing the wood flooring to avoid curing adhesive too quickly.

# GENERAL RADIANT HEAT INSTALLATION GUIDELINES

**Pressure Testing for Radiant Systems**
Water-heated radiant-heat systems must be pressure tested and documented by a qualified plumber or the system installer before wood flooring installation begins. Similarly, electric radiant-heat systems should be tested prior to installation, following the manufacturer's guidelines.

**Consult with Experts When Mixing Heat Conductivity**
If multiple flooring materials with different heat conductivity are on the same circuit or heating zone, consult with an HVAC mechanical engineer or the Radiant Panel Association before proceeding.

**With these recommendations, you can ensure a safe and successful installation of wood flooring over radiant heat systems, maintaining the integrity and performance of your flooring.**

# POINTS OF ATTENTION

- **Subfloor Temperature Limit:** The maximum allowable subfloor surface temperature is 29° C (85° F).
- **Expect Seasonal Changes:** Some shrinkage in the wood flooring may occur during the heating season.
- **Watch Out for Hot Spots:** Certain radiant heat systems (mainly electrical) can create hot spots, especially if rugs or other items are placed directly on the wood floor, potentially impacting the stability of the flooring.
- **Humidity Control:** We strongly recommend installing room humidifiers or whole-house systems to prevent over-drying. This helps avoid damage, such as cracking or splitting, from excessively dry conditions.

# POINTS OF ATTENTION

- **Maintain Constant Room Conditions:** The ambient room temperature should ideally range between 15°C (60°F) and 24°C (75°F), with relative humidity maintained between 35% and 55%. The subfloor temperature should not fluctuate more than 2°C (4°F) within 24 hours.

- **Protection After Installation:** When protecting the flooring after installation, ensure that there is no buildup of humidity between the protection and the wood flooring. Keep radiant heat off or at a low setting to prevent excessive heat retention. Avoid keeping protection in place for extended periods (ideally no longer than 2 weeks). If protection is needed for longer periods, periodically lift it to allow the floor to breathe.

**Follow Logs End installation instructions and ensure the subfloor is approved. If your radiant-heating system or site conditions do not meet these requirements, please contact Logs End for further guidance.**

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