

Technical Newsletter #31 1.0 Subject: Radiant heating systems recommendations

Parquets Alexandra knows there are a lot of different radiant heating systems available in the market. Based on tests carried out by the MIRAGE* R&D team to evaluate some of the systems in terms of risk regarding platforms and installation methods, this technical newsletter will review the recommendations Parquets Alexandra has regarding the installation of a radiant heating system, the type of system that is allowed to install depending on the floor technology and installation method, and the exclusions.

Here are some general recommendations:

- Make sure to use adhesives recognized by the radiant heating system's manufacturer and by Parquet Alexandra <u>Technical newsletter #23</u>.
- Make sure the wood surface temperature never exceeds 80 °F (27 °C) and not vary from any point by more than 3 °F (2 °C).
- Parquets Alexandra recommendations should never overpass the radiant heating system manufacturer's instructions.
- Make sure the radiant heating system has been tested and in operation for a week prior to the floor installation. The system temperature should be lowered during installation.

Please find below which type of system is allowed to be installed depending on the floor technology and installation method.

	Type of technologies and installation methods		
	Gluing	Floating*	Nailing**
Turne of an direct heading and the	TB19	TB19	TB19
Type of radiant heating systems			
Pipes or electric grid embedded in concrete (slab or thin layer of gypcrete/light concrete)	Yes	Yes	N/A
Pipes in grooved wooden panel (not covered on top)	Yes	Yes	Please refer to the <u>Technical newsletter #36</u> , method 4 with at least 2 beads.
Uncovered pipes in grooved wooden panel with aluminum/metal plated	Yes	Yes	Please refer to the <u>Technical newsletter #36</u> , method 4 with at least 2 beads.
Pipes covered with dissipating aluminum/metal plates and/or wooden panel (also dissipating plates between pipes)	Yes	Yes	Please refer to the <u>Technical newsletter #36</u> , method 4 with at least 2 beads.

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	Type of technologies and installation methods		
	Gluing	Floating*	Nailing**
	TB19	TB19	TB19
Type of radiant heat systems			
Pipes or electrical system fixed under the subfloor (in joist system)	Yes	Yes	Please refer to the <u>Technical newsletter #36</u> , method 4 with at least 2 beads.
Semi-conductive types of polymers or "heating mat" (all the surface of the panel/mat is heating)	Yes	Yes	N/A
"Metal heating foil" not attached to subfloor	No	Yes	N/A
Electrical wire system attached or not to a "neutral support"	Yes***	Yes	N/A

*Using a recommended membrane following <u>Technical newsletter #20</u>, with TB19 product only.

**We understand that some system can be covered by a wood panel to allow nailing (even if embedded in concrete for example). Nailing installation is not preferred since it could lead to more floor movement and risk of system damage.

***Wire diameter and spacing should lead to an 80% glue transfer to be a valid installation. Trowel and adhesive coverage could vary.

Exclusions

Based on tests carried out by the MIRAGE* R&D team regarding the performance of <u>Solid technology</u> <u>floors and all Hickory floors</u> over radiant heat and based on the National Wood Flooring Association statement that radiant heating installations using denser species are less stable, **Parquets Alexandra does not allow these products to be installed over this type of system.**

If you need more information or have any questions, please feel free to contact our Technical Service Department.

MIRAGE Technical Service Department 1-800-463-1303 technical@miragefloors.com

* MIRAGE, our renewed corporate brand, embodies the quality and care found in our prestigious brands such as Mirage Hardwood Floors, Vintage Hardwood Floors, Ten Oaks and Parquets Alexandra. Our legal entity is called Boa-Franc G.P.