

# THERMORY®

The elegance of thermally modified floors lies in the beauty of the wood structure and in its rich colour palette. The cosiness and warmth of Thermory® floors are enhanced with two modification levels - Intense Modified & Medium Modified.

## Installation Guide

## Hardwood flooring

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## 1. Thermory® flooring collection

Solid thermo ash flooring



Intense Modified



Medium Modified

The elegance of thermally modified floors lies in the beauty of the wood structure and in its rich colour palette. The cosiness and warmth of Thermory® floors are enhanced with two modification levels - Intense Modified & Medium Modified.

Profile name FR-1. Can be ordered without finish from factory. It can be oiled, oilwaxed or laquered on site

according to instructions by locally available finishing provider. Tongue and groove edges are in all 4 sides of the boards for easy installation and already sanded surface from the factory reduces the workload during installation. Before applying finishing treatment on site refresh the surface of boards with sandpaper or mesh according to guidelines provided by the supplier of finishing chemistry.

Industrial: thermally modified solid hardwood strips

Thermory® Industrial flooring is suitable for both homes and high traffic areas, such as sports clubs and public places.

Thermory® Industrial flooring consists of solid hardwood strips of 14x20 mm, held together by transparent tape. Such 14x300x360 blocks have to be glued down with regular parquet glue. The tape will be sanded off after gluing. Only apply adhesive to the

back surface – there should be no glue between the individual pieces.

Thermory Industrial flooring needs to be sanded during installation and oil or lacquer application is needed. For perfect result ask the installation to be carried out by a professional hardwood installation company.



Intense Modified industrial flooring



Medium Modified industrial flooring

Industrial panel 14x300x360mm:



## 2. General requirements

Thermory floor solutions are not designed for wet rooms.

Keep floorboards with open packages at the intended room usage temperature and relative humidity for at least 48 hours before installation (we recommend keeping them in the room humidity and temperature conditions ~no less than two weeks to get best result). Floorboards should be stored in an opened package covered from light and dust on a horizontal and level

surface at the room temperature (18-24°C) and keep the humidity levels as intended for exploitation period.

During and after floor installation the temperature of the subfloor, flooring and room must remain in the range of 15-27°C. Relative humidity in the room should stay between 30-60%. Long-term fluctuations in air humidity may result in the shrinkage or swelling of flooring.

## 3. Subfloor

Both, concrete as well as engineered wood (OSB, Plywood; etc) subfloors can be used. Solid wooden

flooring is recommended to be installed with glue-down adhesive. Subfloor must be:

○ **Dry** – Humidity should be measured from at least 3-4 different places. Moisture content should be:

- Engineered wooden subfloors – 5-8%
- Concrete floors - 1,8-2% CM. Concrete drying time depends on screed thickness, particular product used and the ambient conditions. If the moisture level in the concrete is too high it may ruin the floor. Turning on underfloor heating with too moist concrete will ruin the floor!
- Gypsum flooring - less than 0,5% CM (for heated floors less than 0,3% CM)

○ **Clean** – Loose dust, concrete cement milk and stains must be removed. Any oil and grease stains must be removed.

○ **Smooth** - The unevenness of the base surface must not exceed +/- 2 ~ 3mm per 2m.

The subfloor should not have large cracks. Recommended pulling strength of the concrete substrate / screed should be 1.5N/mm<sup>2</sup>.

## 4. Installation

Regardless of the type of subfloor, the recommended method for installing floorboards is to glue them directly onto subfloor. Installing hardwood flooring with glue down method generally should be done by flooring professionals.

Use special elastic parquet adhesive (for example: Bona Quantum T, Bona R850, R848T; Sikabond 54 (T-54) etc), which ensures flexible bonding to the subfloor. **Please note that you should strictly follow the instructions of the adhesive manufacturer.** The use of alternative installation methods (using nails or screws) is at the installer's own risk. **We strongly recommend that installation be carried out by professional hardwood installation company.**

**Distance from the walls and other fastened objects:** When installing floorboards, take into consideration the shrinkage and swelling of floorboards. Thermotreated

floors are dimensionally 40% more stable than traditional wooden floors nevertheless expansion gap should be left between walls and rigidly fastened objects. The size of the expansion gap depends on the size of the room and stability of interior climate, but it should not be less than 8-10 mm. Expansion gaps can be covered with skirting or filled with flexible joint mastic of suitable shade.

For larger floor areas, it is recommended to include expansion gaps, even in the middle of the room. One possible practice is to strategically leave some of the board rows slightly less tightly fitted together (leaving approximately 1-2mm between boards), effectively concealing these gaps. This approach provides additional space for floorboards to expand in case moisture levels rise after installation. Large areas should be installed by experienced flooring professionals.

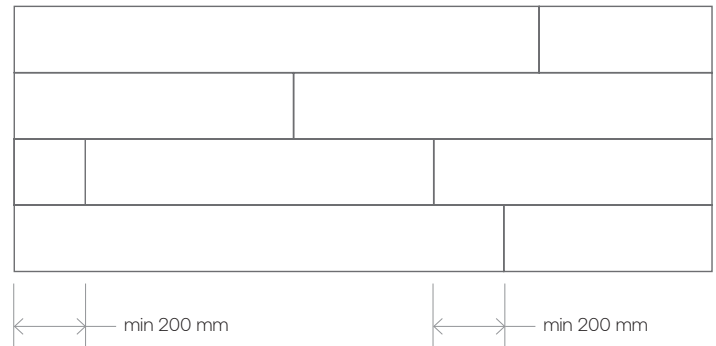
**Installation of floorboards:** Before installing make sure that each floorboard complies with standard requirements. Never install defective material. Minor deviations in the shade and texture of the boards are acceptable. **Please note that NO CLAIMS will be accepted for defective flooring boards that are already installed.**

Start with planning the layout of the room. Take care to fit the first rows of the floorboards straight – correct installation of the rest of the floor depends on it.

It's recommended to lay the boards in the direction of the room's entrance and with consideration for natural light. To visually elongate the room, have the floorboards run parallel with the longest wall and vice versa.

Start installing from the back wall. Start from placing the 10mm expansion distance spacers between the wall and other fixed obstacles. The first board should be installed groove facing to the wall. Distance spacers should be removed immediately after the glue has set.

Floorboard end joints must not be closer than 200mm to the ones in adjacent row.



Weights must be applied to the installed floor to keep the boards straight and stable until the glue has fully set. In large rooms it might be necessary to carry out installation in smaller sections, depending on glue drying time..

## 5. Thermory® flooring on heated floors

Thermory thermally modified floors are compatible with underfloor heating. Thermory treatment process gives floorboards low equilibrium moisture content leading to dimensionally more stable flooring than traditional wooden floors.

Thermal conductivity values:



Solid thermo ash and Industrial flooring -  $\lambda = 0.12$  [W/(mK)]



Thermory Ash F5-2 -  $\lambda = 0.14$  [W/(mK)]

**Installation to the floors with underfloor heating** - floor heating on concrete subfloors should be switched

on for at least 2 weeks before installing the parquet. 2 days before the installation work, the underfloor heating must be switched off or, in winter conditions, switched to a mode where the room temperature would be around 18°C. The underfloor heating can be switched on again 2 days after the floor has been installed, increasing the temperature slowly. **Turning on the underfloor heating with too moist concrete subfloor will result in excessive moisture evaporation from the concrete and may damage the wooden floor.**

**Strictly follow the instructions of the adhesive manufacturer.**

## 6. Finishing

Thermory® flooring products are generally sold unfinished, giving each customer the opportunity to choose between various oils and lacquers, according to their preference and local availability. Finishing can be done after the untreated solid wood floorboards are installed and the adhesive has completely cured. Floorboards have been sanded at the factory and require no additional sanding after installation except Thermory® Industrial flooring that has to be sanded

on site. **Strictly follow the instructions of the finishing manufacturer.** Prior to installing the finishing product, a gentle refresh of the floor surface using mesh or buffing discs may be necessary. Abrading the surface slightly can enhance absorption, preparing it for the application of the finishing product.

Finishing with oil or lacquer is needed to preserve the wood and give a more even and rich look.

## 7. Maintenance & care

Any kind of hardwood floor adds not only charm but beauty to almost any room. But like most types of flooring, they need care on a regular basis to maintain

their high-quality appearance. To maintain the beauty of your floor for years to come please note the following:

### Air temperature and humidity:

- Thermory hardwood flooring boards are produced from natural timber. Therefore, significant moisture variations may influence the product.

It is important to keep the relative humidity in the room as stable as possible. Recommended humidity level is 30–60%.

- Recommended temperature range is 15–27°C

### General care and damage prevention:

- Please monitor moisture and temperature and take corrective measures if necessary.

- Use minimal moisture only if necessary to clean the floor.

- Place doormats on both sides of your front door to reduce mud and sand getting on the floor.

- Apply floor cleaning solution directly onto the cloth, not onto the floor.

- Remove any dirt or other abrasives immediately.

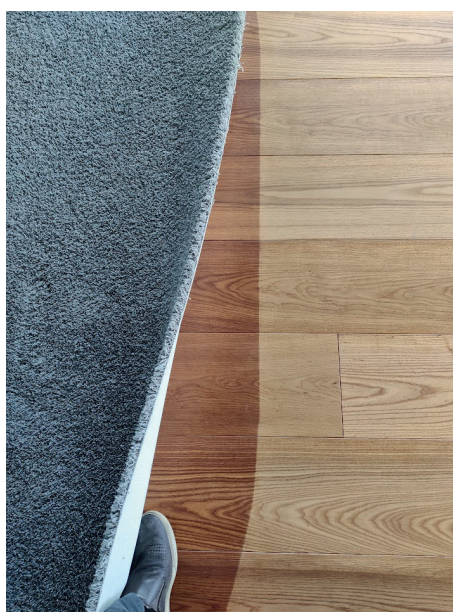
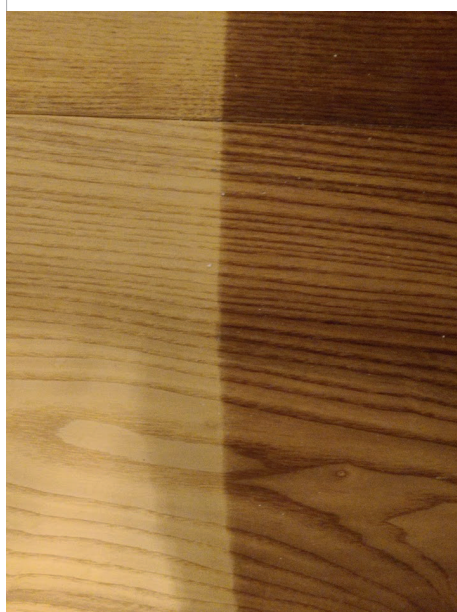
- Protect all furniture with felt pads to avoid scratching.

- If excess water or other liquids get on the floor, clean it immediately.

- Avoid wearing high-heeled shoes on the floor, as these can dent or scratch the floor.

- Avoid placing wet things on the floor.

- Close curtains or blinds to limit direct sun exposure. Install transparent floor protection mats for flowerpots, pet food bowls, shoes, office chair wheels, etc.



Rugs and furniture should be moved periodically if the area is exposed to regular sunlight to minimize the effects of colour change over time. The light resistance of heat-treated wood is considerable and the shade changes over time.