

## FLOOR and more® comfort Installation guideline

# Installation guideline FLOOR and more® comfort

## System description

The FLOOR and more® comfort flooring system of the Lindner AG is a self supporting dry hollow flooring system. The panels are supplied with factory-milled grooves for the integration of the heating pipes into the system. The system panels have a tongue and grooving which is glued together with Lindner Joint Glue and forms a closed and homogeneous surface.

The galvanized pedestals are glued to the floor element as well as to the subfloor. Later installations in the floor cavity space are possible.

Due to the fast drying time, FLOOR and more® is perfect for projects with a short construction time (e.g. refurbishments).

# Installation guideline FLOOR and more<sup>®</sup> comfort

## System description

The system has been exclusively designed for the use in interiors. Floor coverings can be applied regardless the grid of the floor system.

The static load bearing capacity of the system is indicated in the data sheets, additional reinforcement measures such as additional pedestals are also mentioned in the data sheets.

## Installation guideline FLOOR and more® comfort

### IMPORTANT !

Please read the following instructions carefully prior to installation!

- The laying of FLOOR and more® requires special experience and should only be performed by qualified workers.
- The quality of the gluing of the panels is crucial for the load bearing capacity.
- The FLOOR and more® comfort system has to be installed acc. to an installation plan.
- The heating tube and the fittings have to be from the same system manufacturer! We **cannot guarantee** for the tightness if different manufacturers are used.

## Installation guideline FLOOR and more<sup>®</sup> comfort

### ATTENTION !

- Please carefully check all materials for any damage prior to installation. Any complaints that are made after the products have been installed will be rejected.
- The permitted climate is at a temperature between  $20 \pm 5$  ° C and an air humidity of 40 to 65 %.
- The panels must be stored on a level foundation, as this will prevent any deformation.

# Installation guideline FLOOR and more<sup>®</sup> comfort

## Important preparations

- A thorough preparation makes the installation much easier and also increases the efficiency!
- The subfloor must be able to take up any derived loads of the FLOOR and more<sup>®</sup> system.
- It has to be paid attention to the residual moisture and the subfloor has to be checked on damages on the surface (e.g. craters). If there are any problems concerning these points, these have to be solved prior to installation.
- The deviations of the subfloor in accordance to DIN 18202, table 3, line 2 have to be observed.
- The room must be checked for squareness in order to avoid any thin cut panels.
- Prior to installation, the areas must be sensibly divided or subdivided into heating circuits. A installation plan has to be made.
- The established heights in each building level (e.g. 1-metre gap, lifts, stairwells) must be checked.

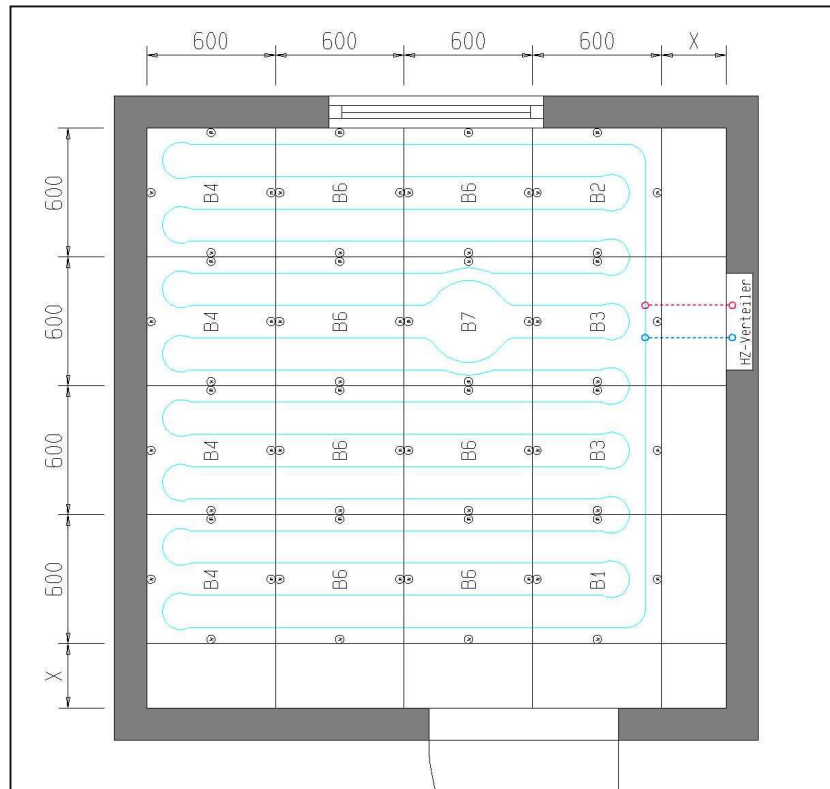
# Installation guideline FLOOR and more® comfort

## Important preparations

- The sealing for the subfloor must be applied to a clean surface by using the sealing brush in accordance with the manufacturer's instructions. The 1C subfloor sealing is intended for standard stresses. The 2C sealing is recommended with ventilated floors. All emerging components must be sealed to the upper edge of the floor. Gaps in the subfloor must be sealed permanently elastic and airtight.
- The subfloor must be cleaned by vacuuming or sweeping. Any construction waste has to be removed by the causer.
- In order to facilitate installation, the pedestals should be adjusted roughly on height before starting with the installation.
- Performance details for electrical outlet boxes, raised floor channels, bridgings etc., can be planned and fixed according to the project in question.

# Installation guideline FLOOR and more® comfort

## Installation plan





# Installation guideline FLOOR and more® comfort

## Components

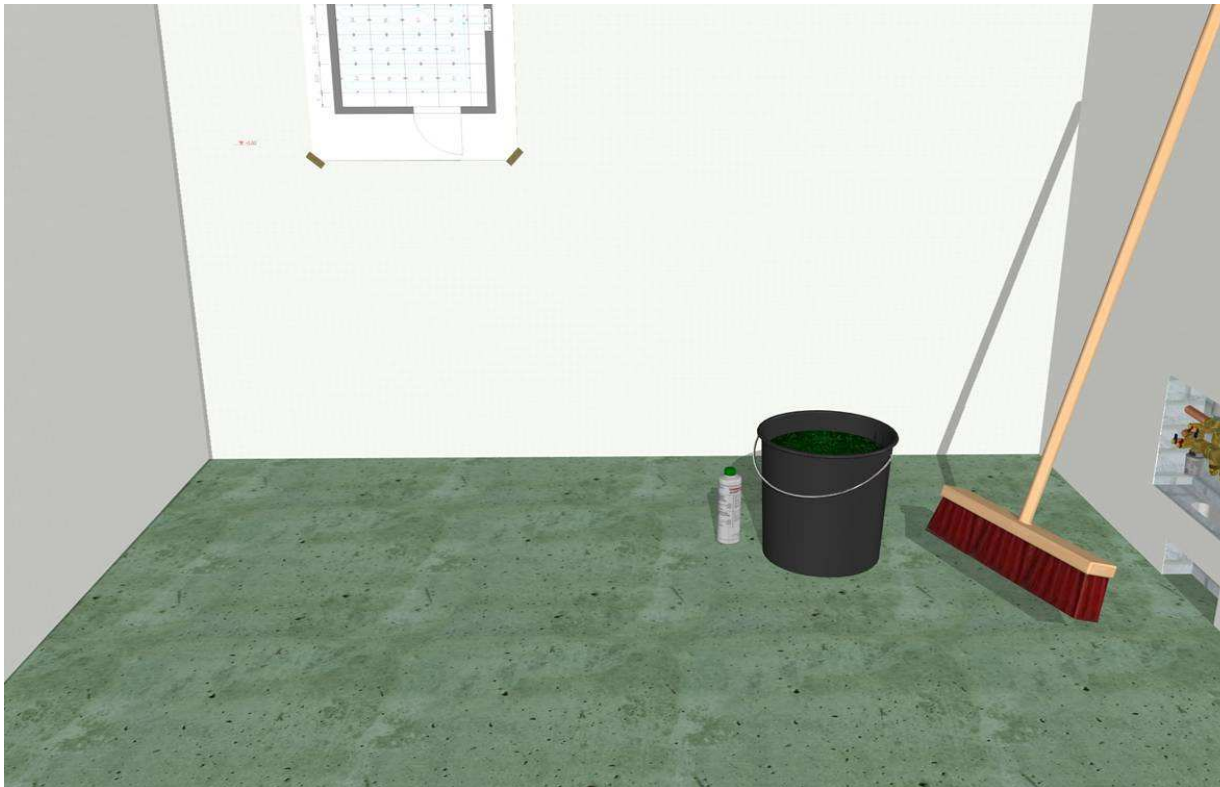


# Installation guideline FLOOR and more® comfort

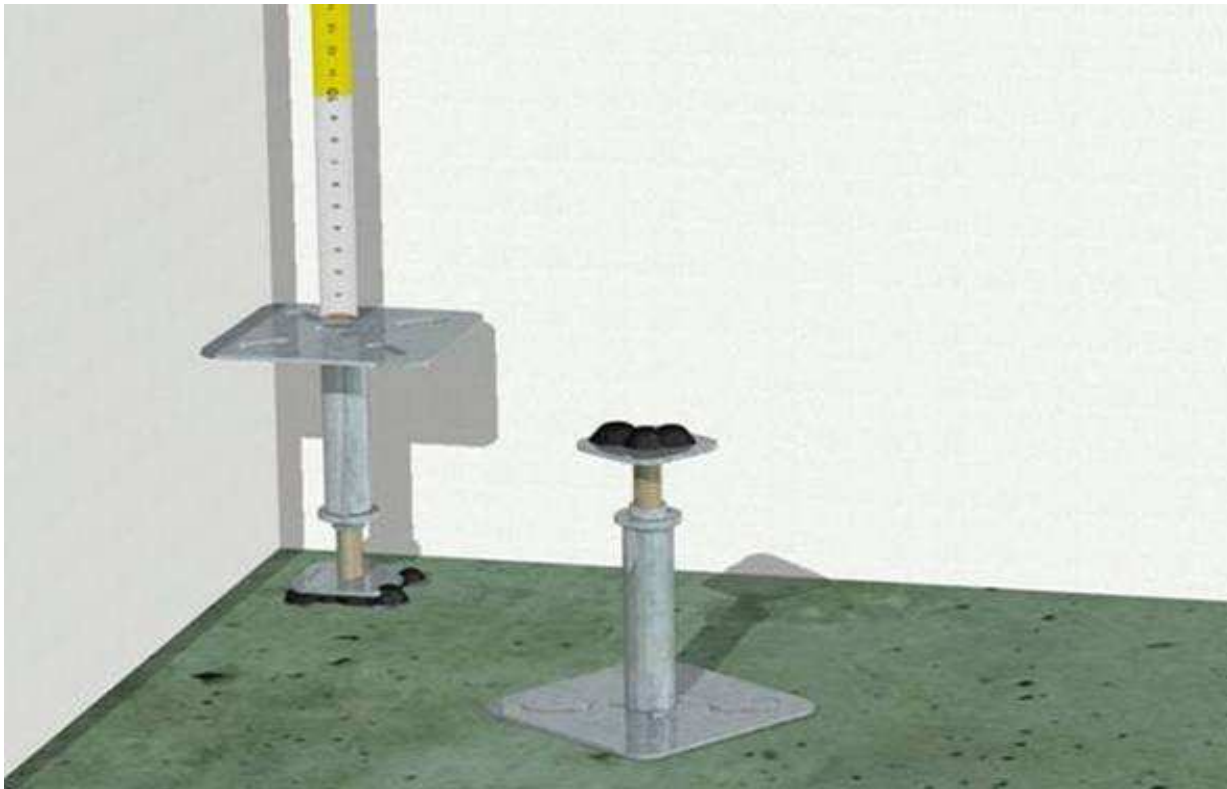
## Required tools



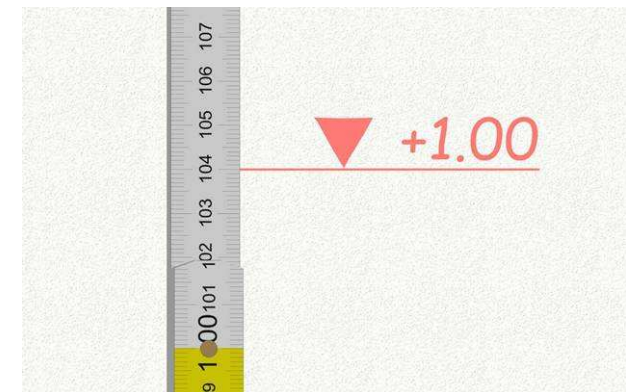
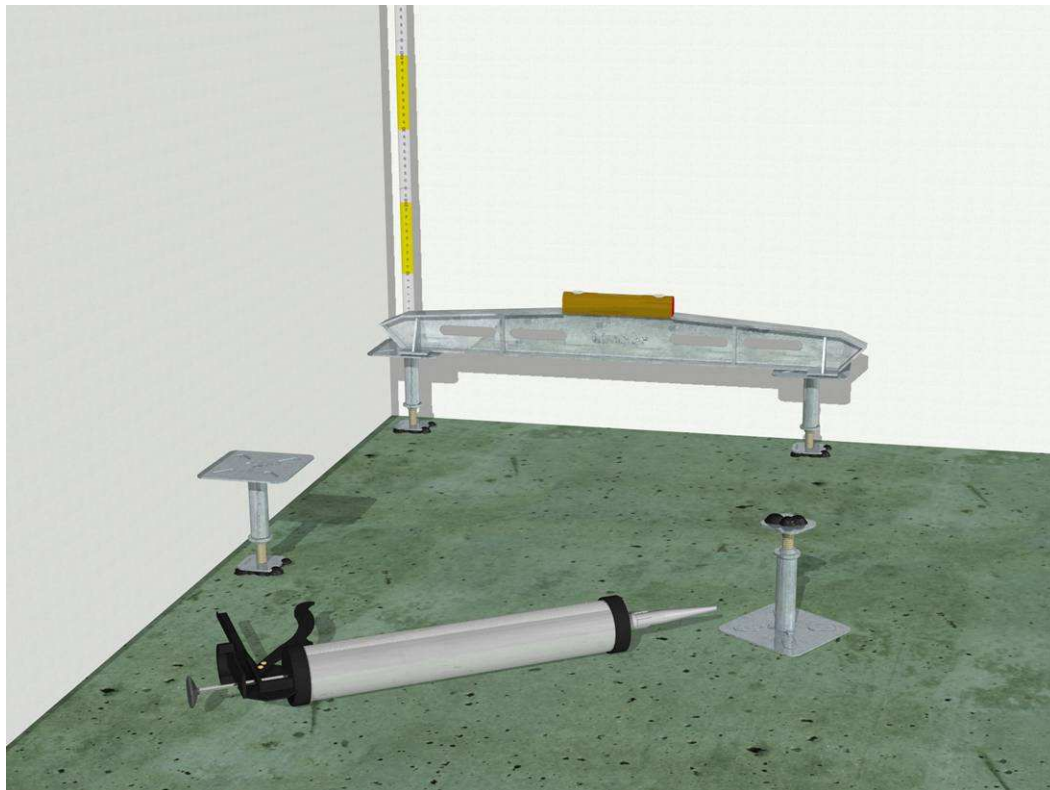
Cleaning and sealing of the subfloor.



Gluing with pedestal glue (walnut size) and levelling on height of the reference pedestal according to installation plan.



Levelling of the pedestals for the reference panel.  
Check height reference points (1 metre gap).

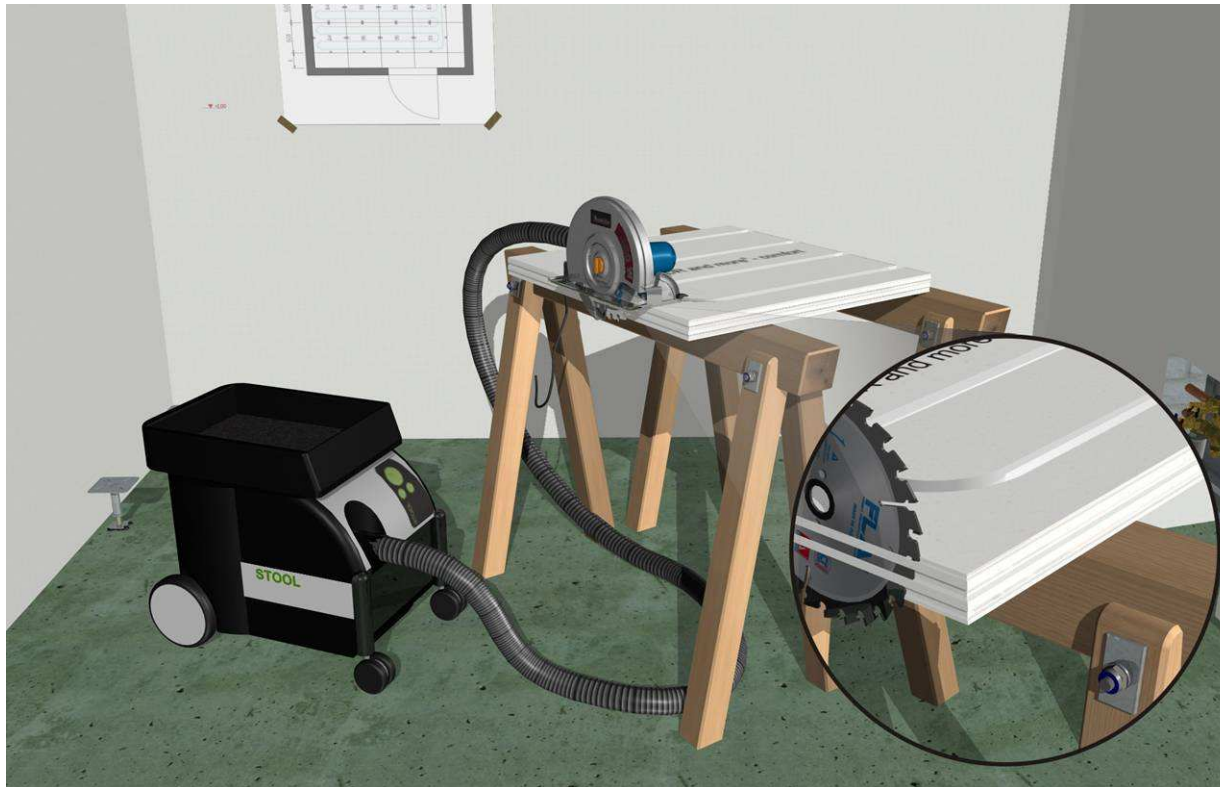




Adjust the cut panel to the geometry of the room.

A suction is to be used with the cutting of panels!

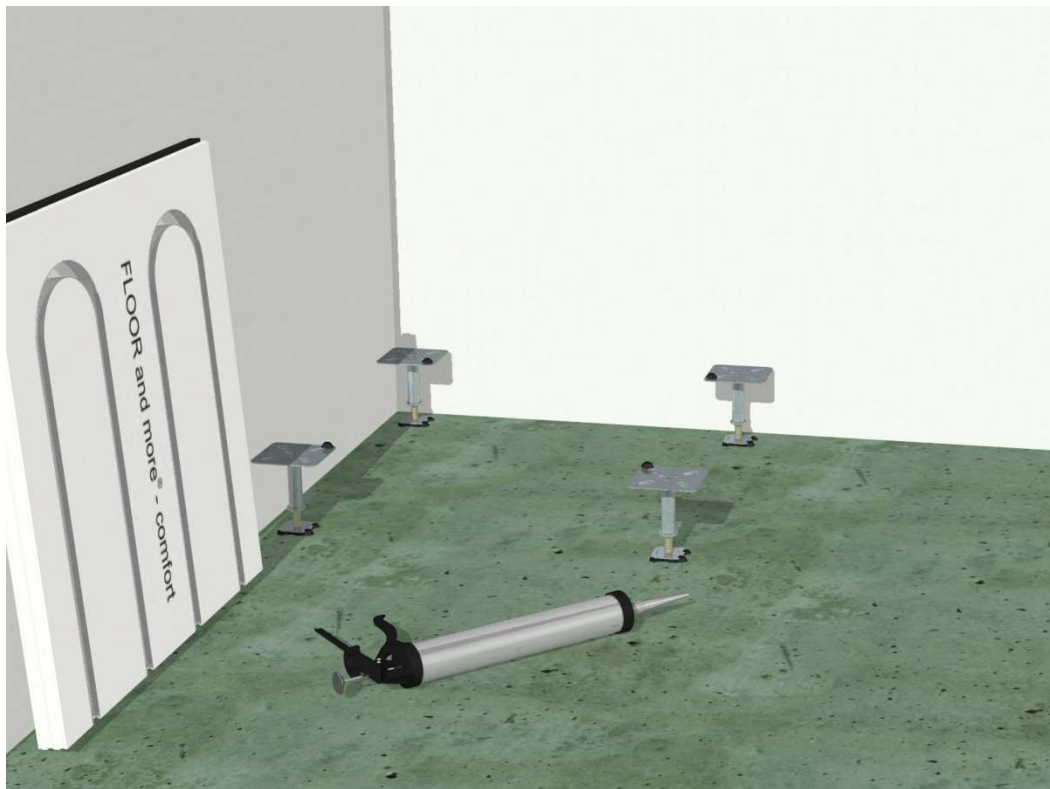
It has to be paid attention to an uniform installation direction (see logo „FLOOR and more®“)!



Seal the cut edge with Edge sealing, apply the wall connection foam tape to the lower section of the cut edge and cut it off flush at the edge.

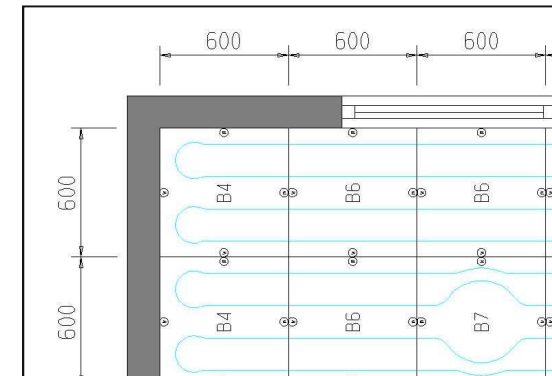


Apply the pedestal glue for the reference panel to the corner of the head plate.

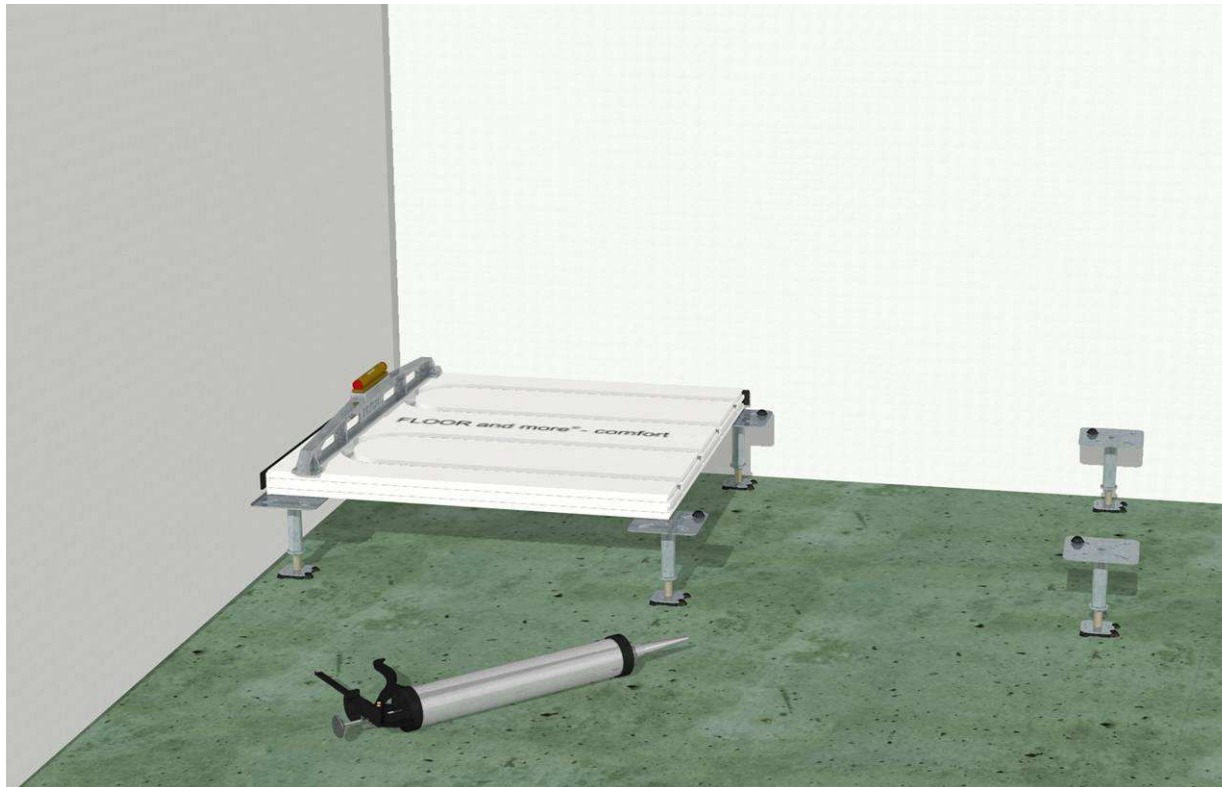




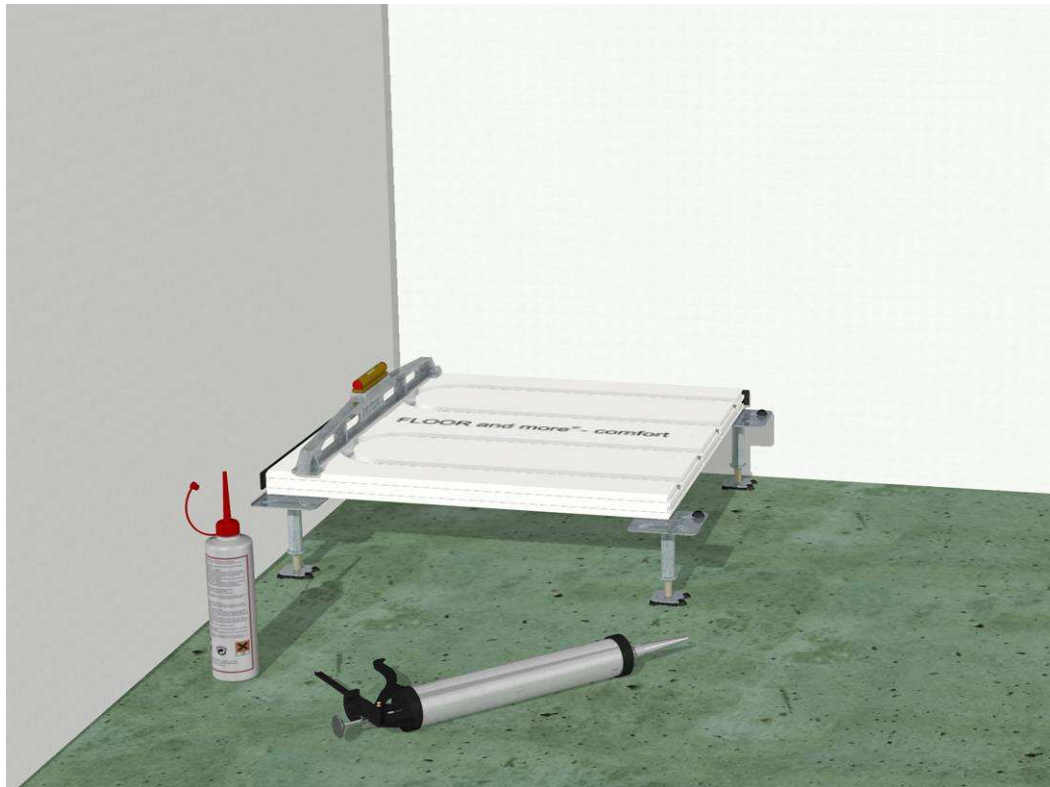
Install the reference panel acc. to the installation plan and check it.  
Keep the pedestal glue away from the panel joint!



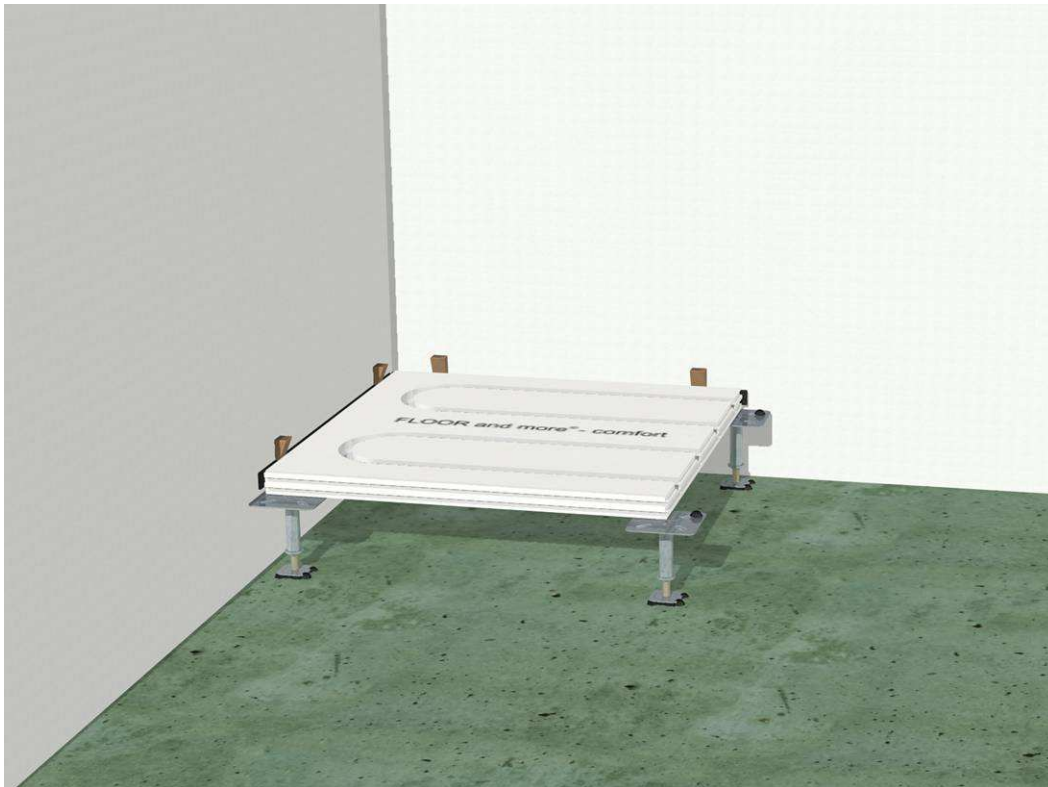
Adjust pedestals for the next panel and apply pedestal glue.



Secure levelled pedestals with Lindner Locking glue to prevent a later height misalignment.  
Insert the Lindner Locking Glue from above into the pedestal.

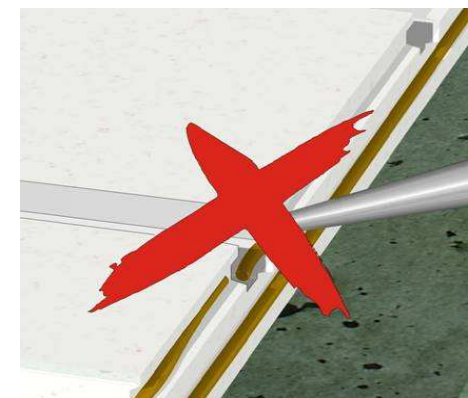
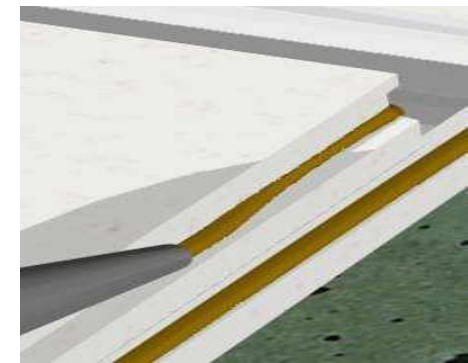
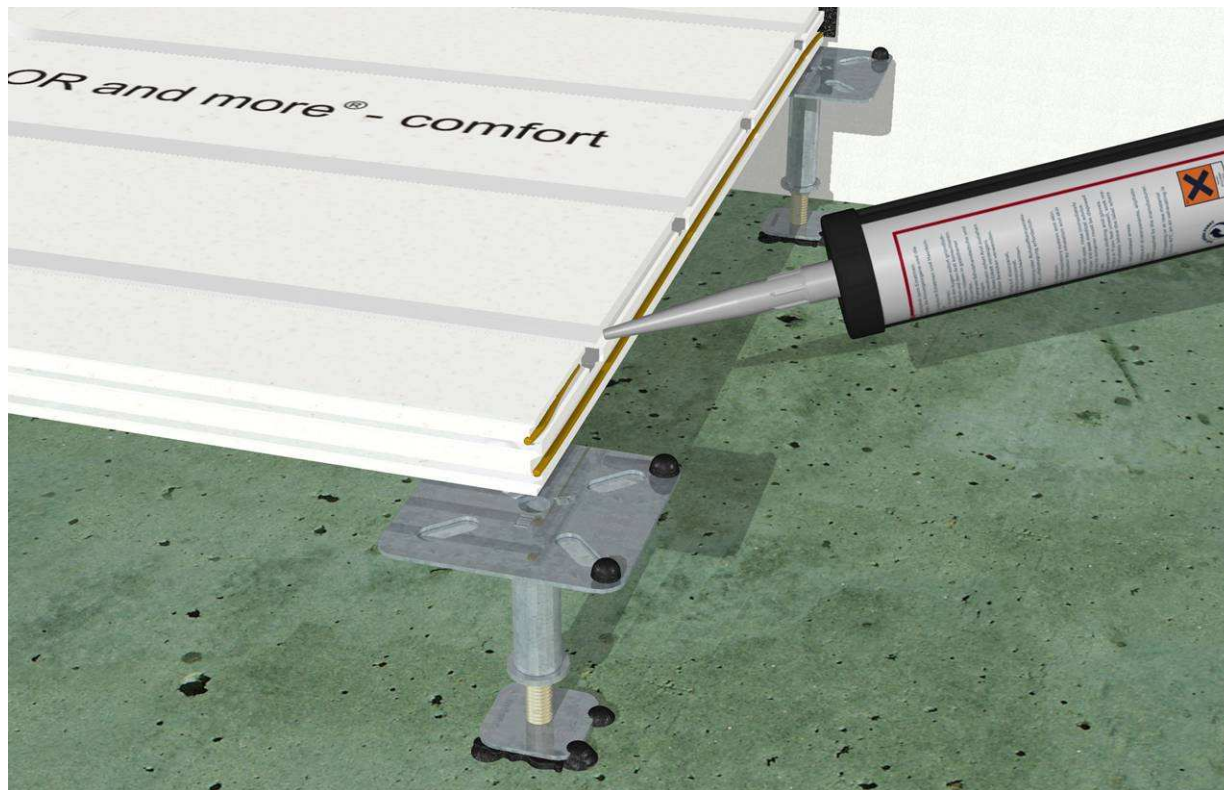


Insert wooden wedges to create a solid first panel. The distance to rising building parts depends on the size of the floor area, but has to be at least 5 mm.

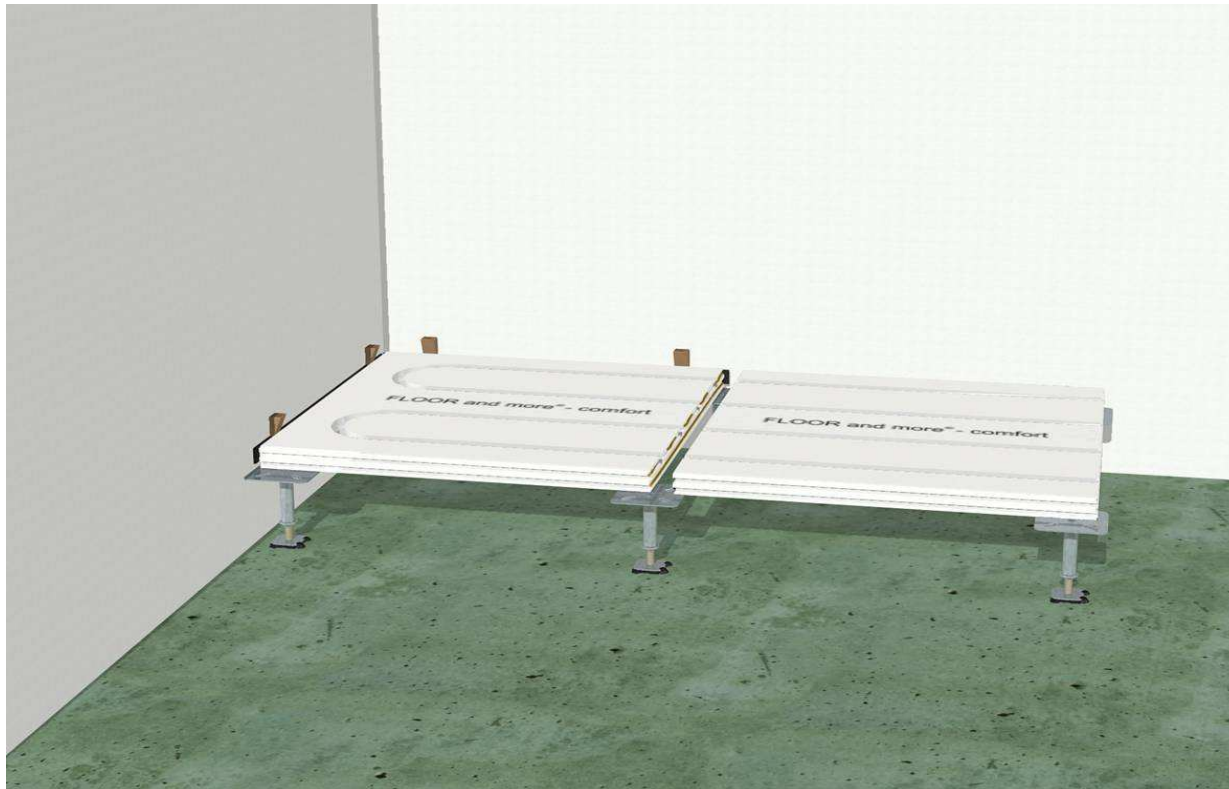




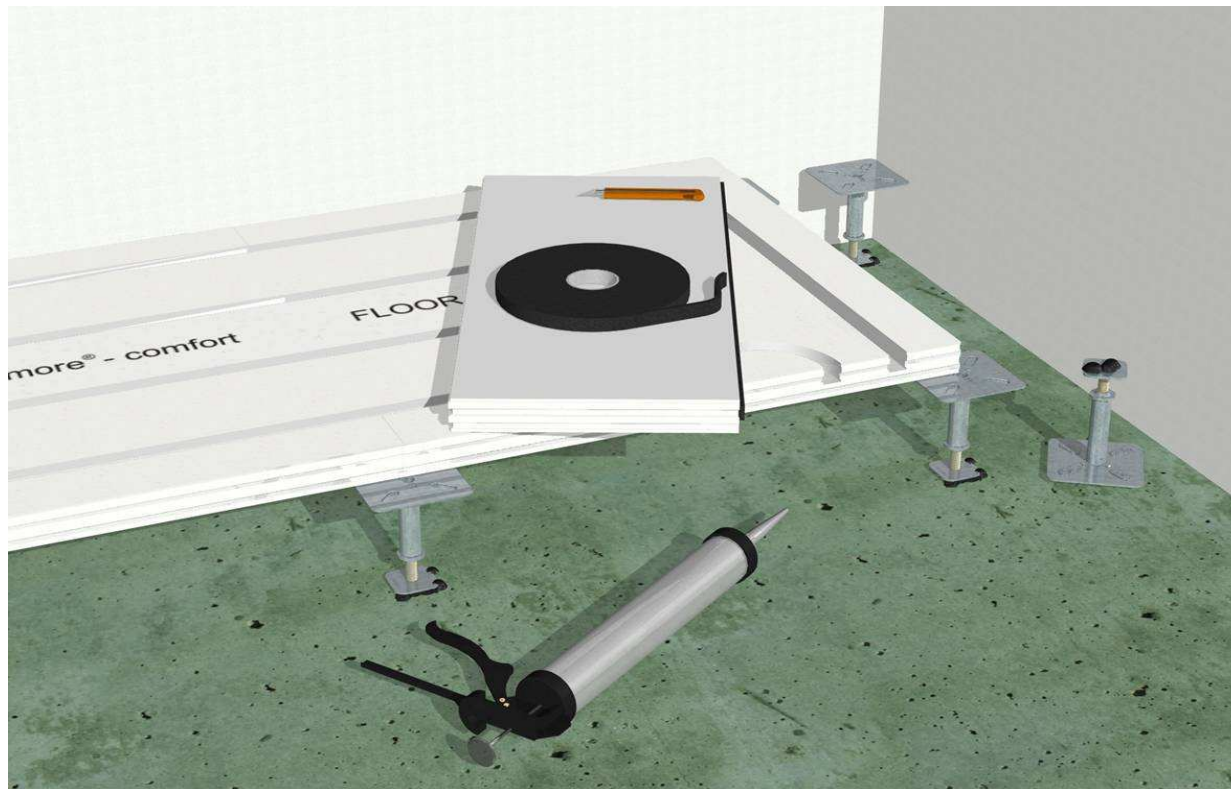
Apply FLOOR and more® Installation glue for the gluing of the joints on the top of the tips of both tongues.



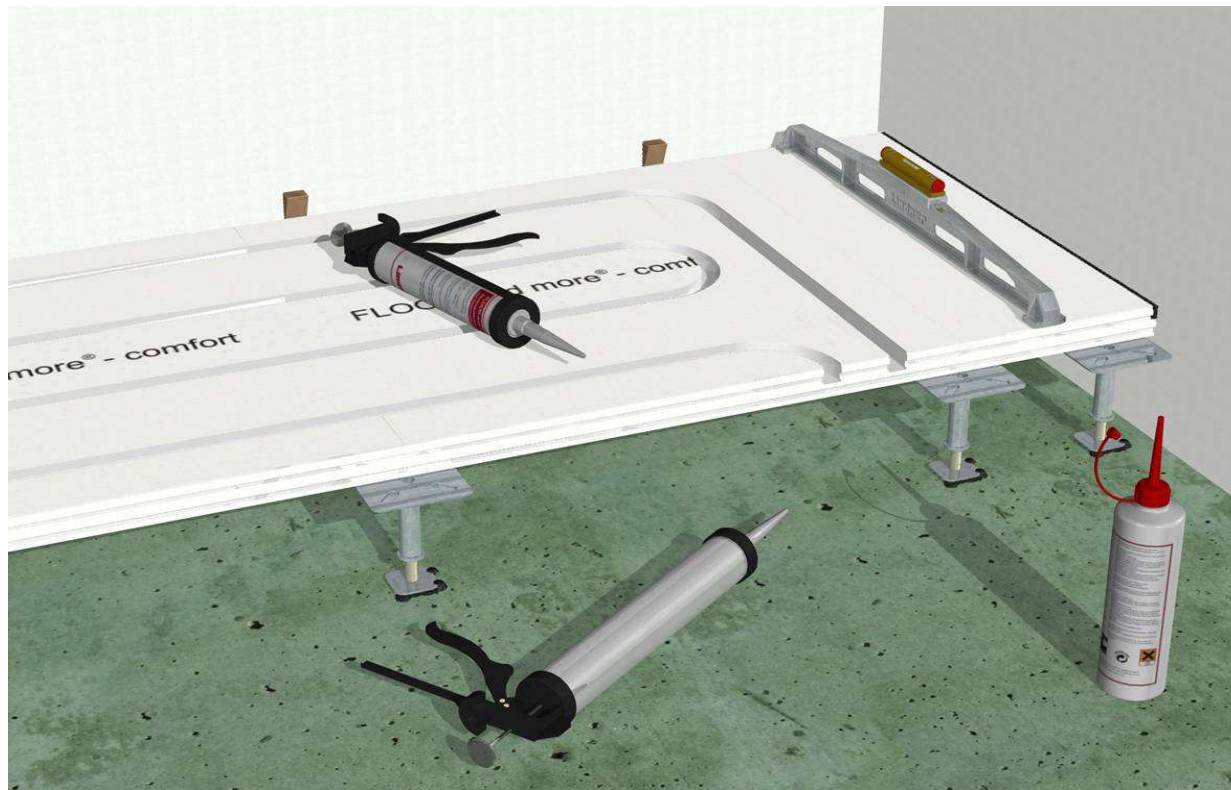
Install and adjust further panels acc. to installation plan.  
Pay attention to the FLOOR and more® logo!



Use a standard FLOOR and more® panel for the cut panels in the perimeter area.



Check the first row and wedge it.





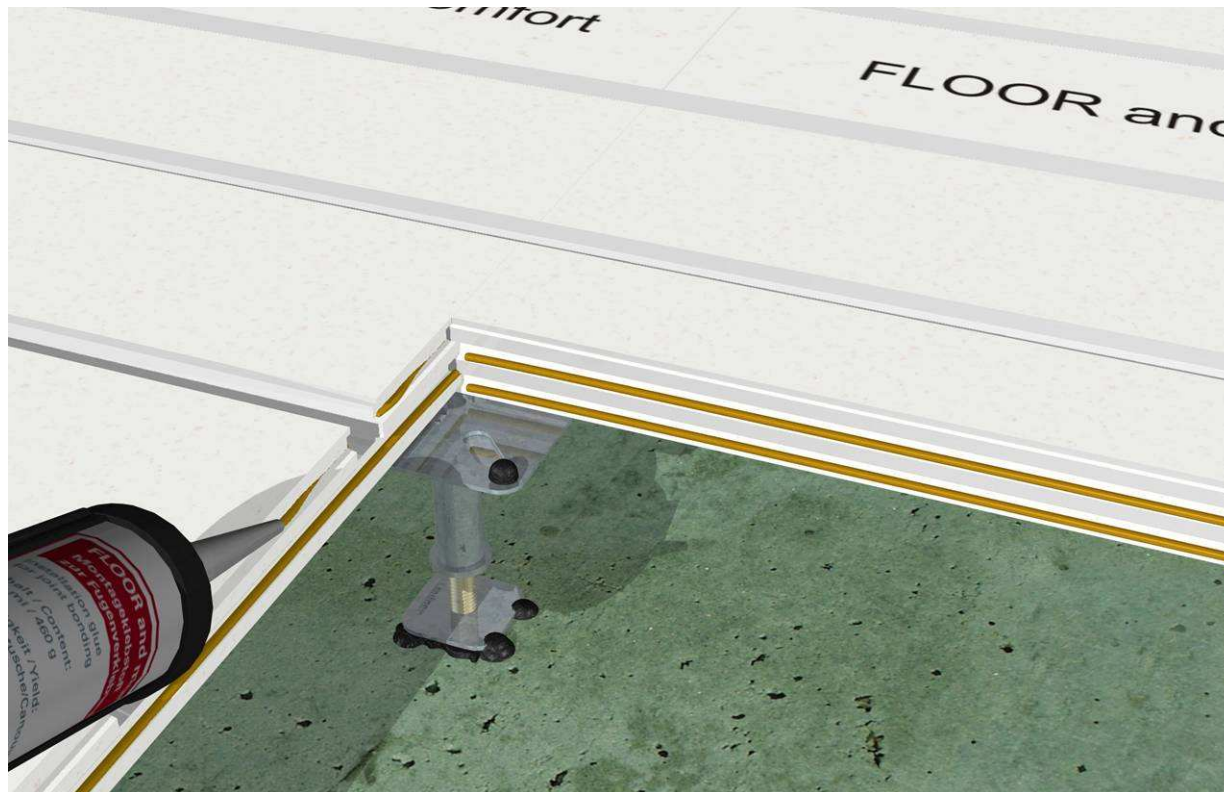
Remove the possibly escaped Installation glue at the panel or tongue and groove joints with a spatula. Let the first row dry for 24 hours, if possible.



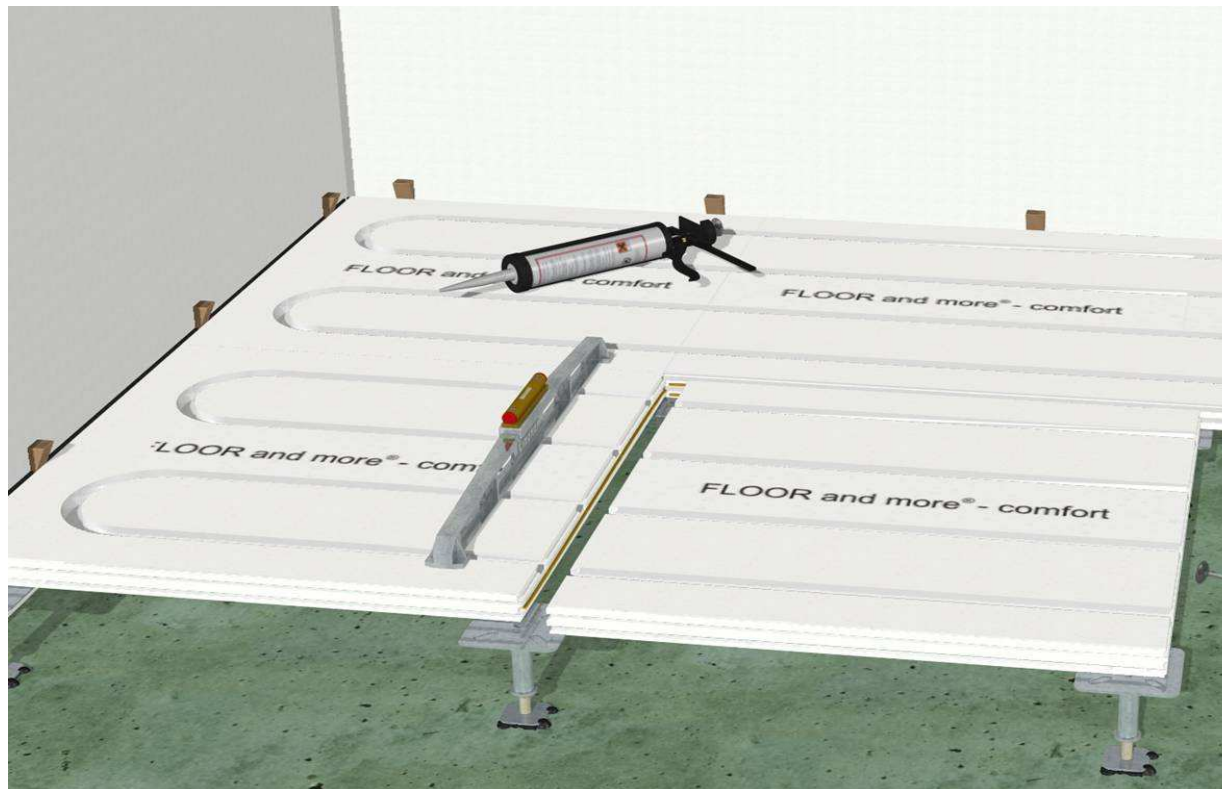
Install further rows of panels acc. to the installation plan.



Apply FLOOR and more® Installation glue for the gluing of the joints on the top of the tips of both tongues.



Lay the panel in a distance of approximately 1 cm to the other panels on the pedestal and push it into the tongue and groove joint.



Secure every pedestal with Lindner Locking glue in order to prevent a later height misalignment.

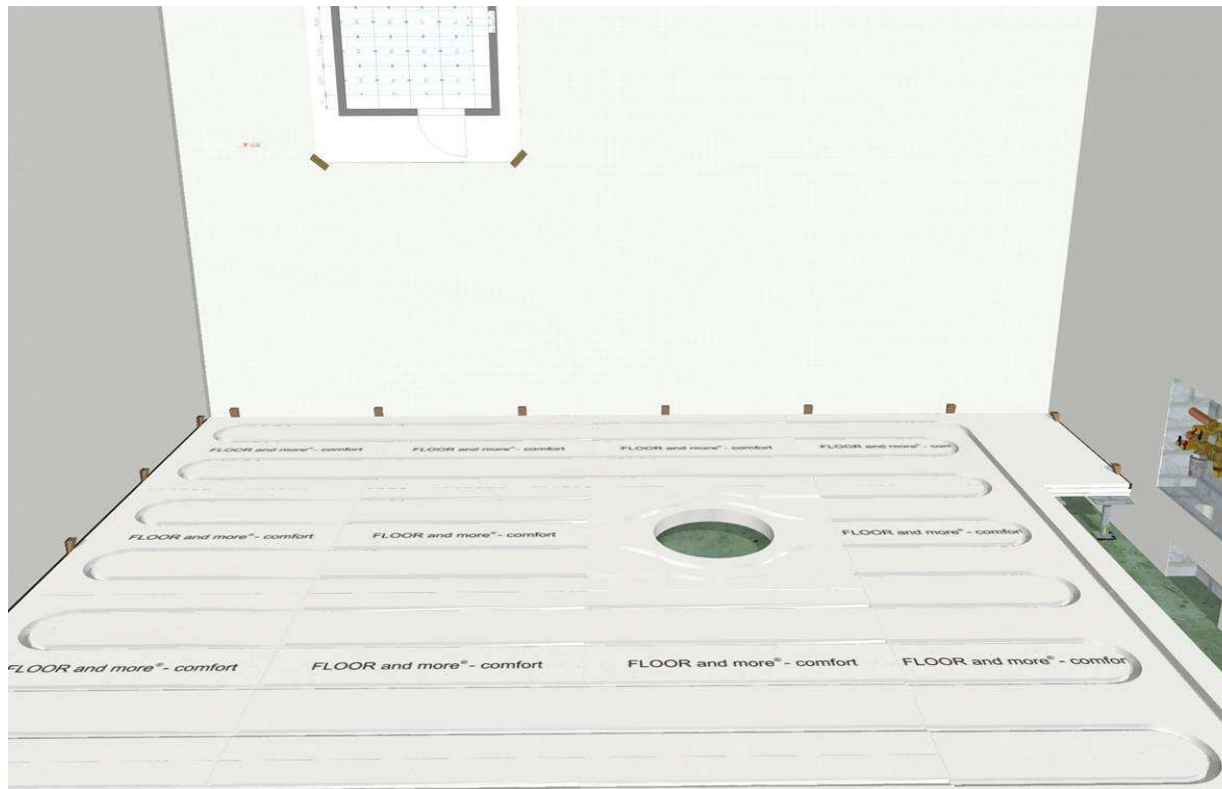




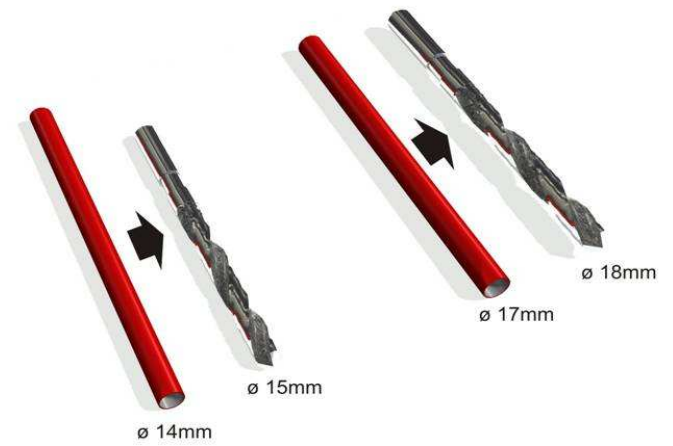
Check the joint fit, levelness and the grid for straight crossings permanently.



Prefabricated floor openings for electrical outlet boxes can be integrated optionally.

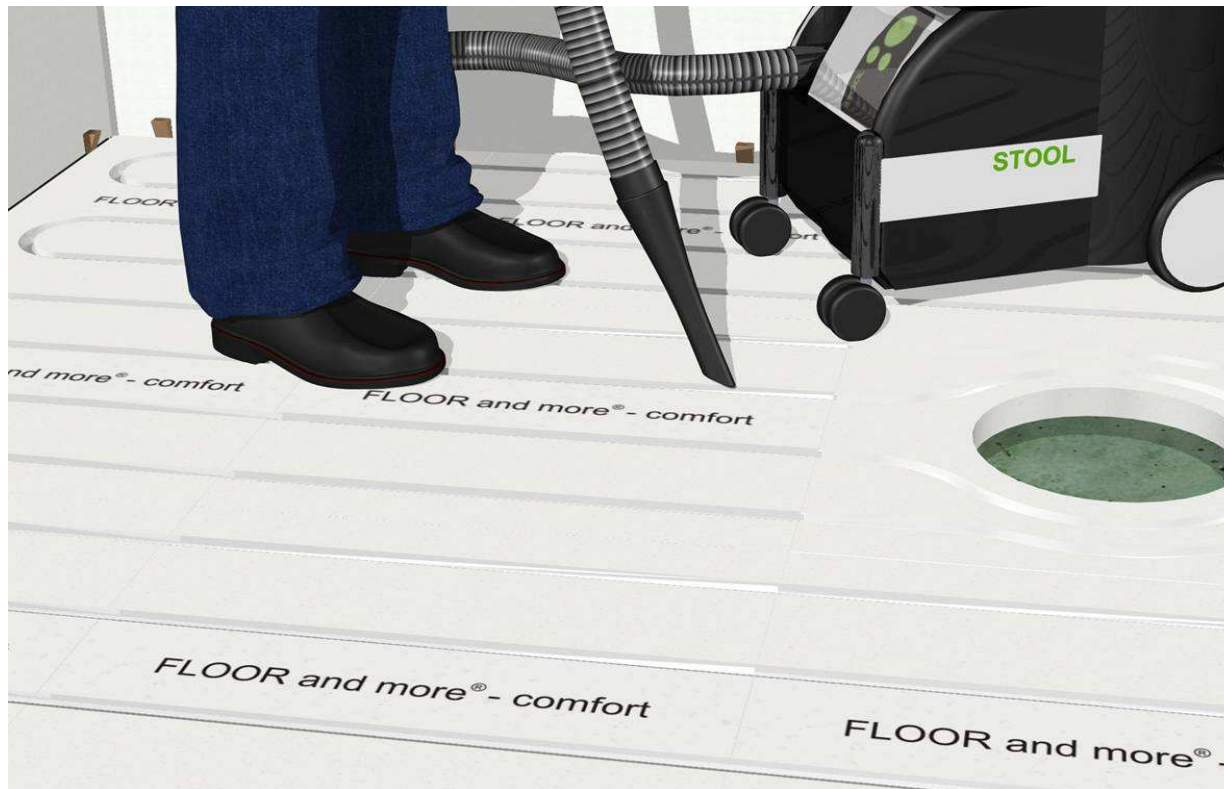


Drill holes for the bushing of the heating tube.

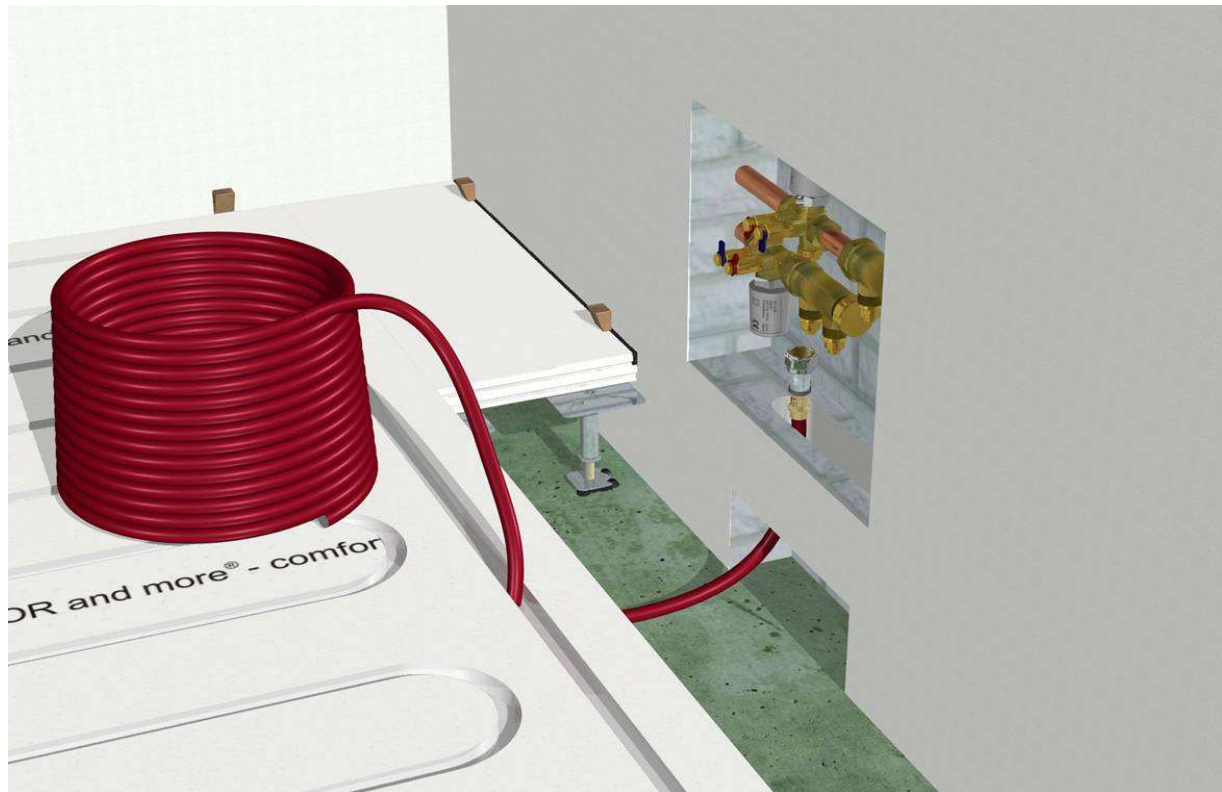




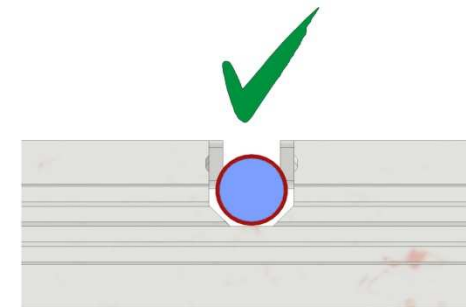
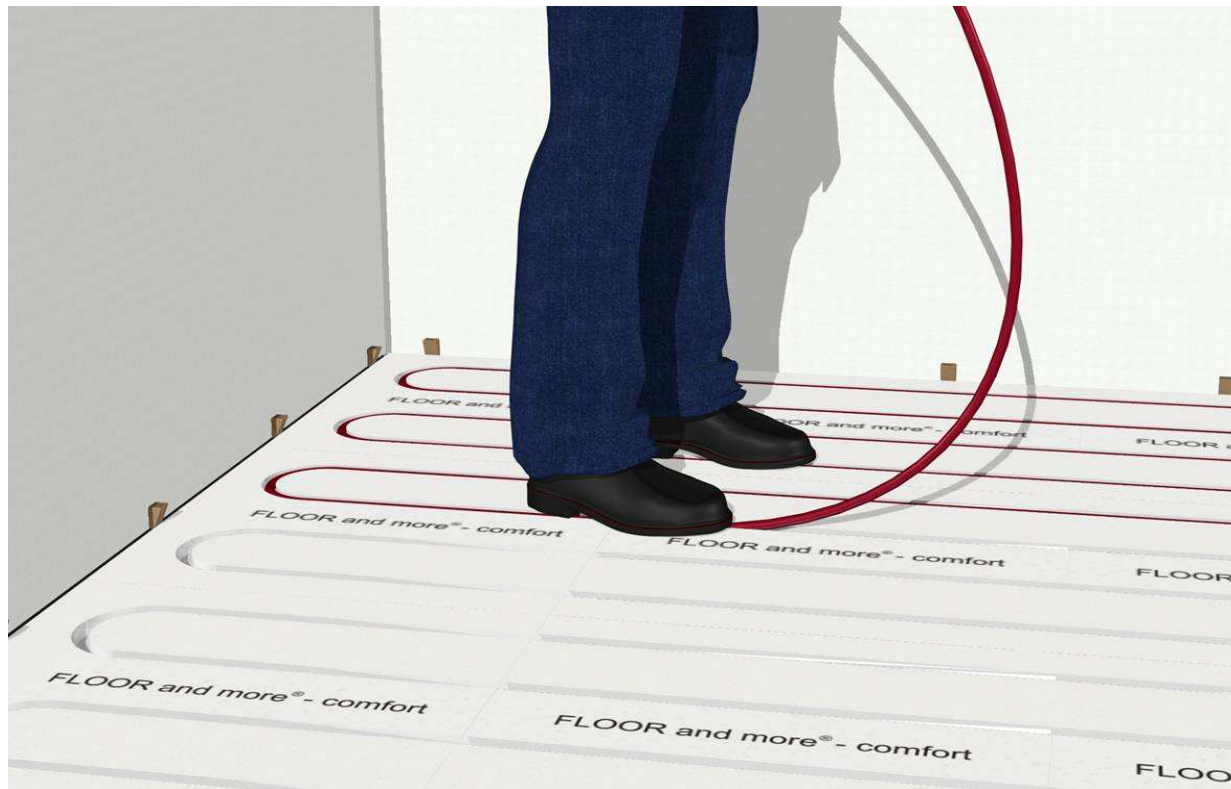
Clean the heating tube grooves.



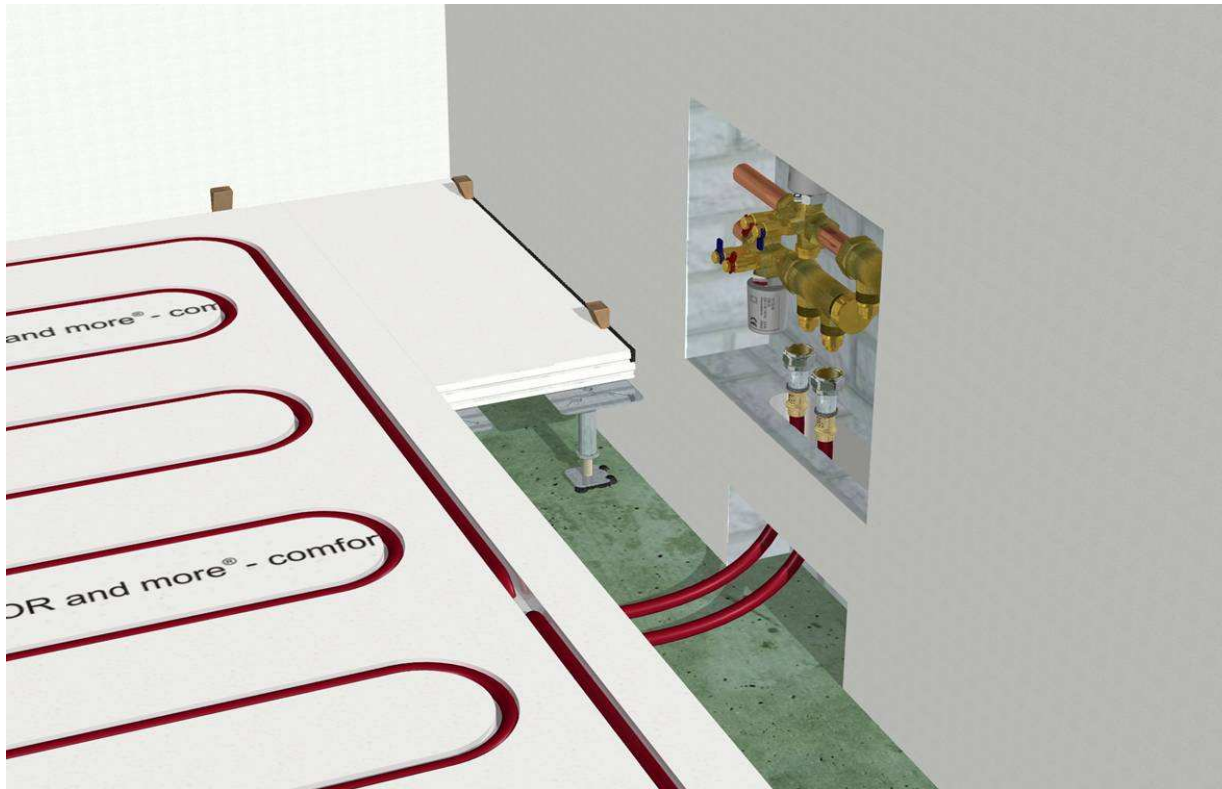
Conduct the end of the heating tube through the drilled hole and connect it to the supply with the suited fitting.



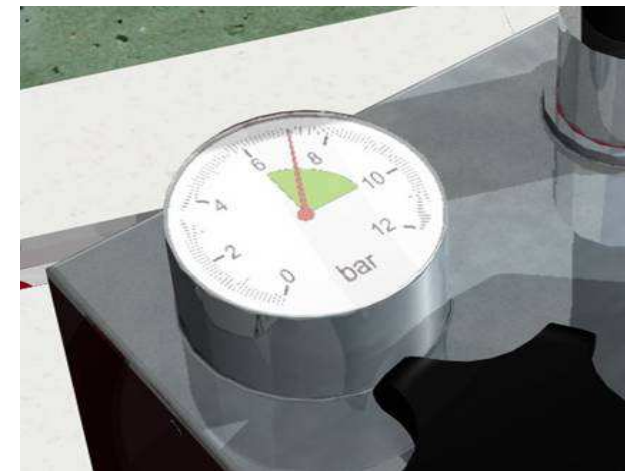
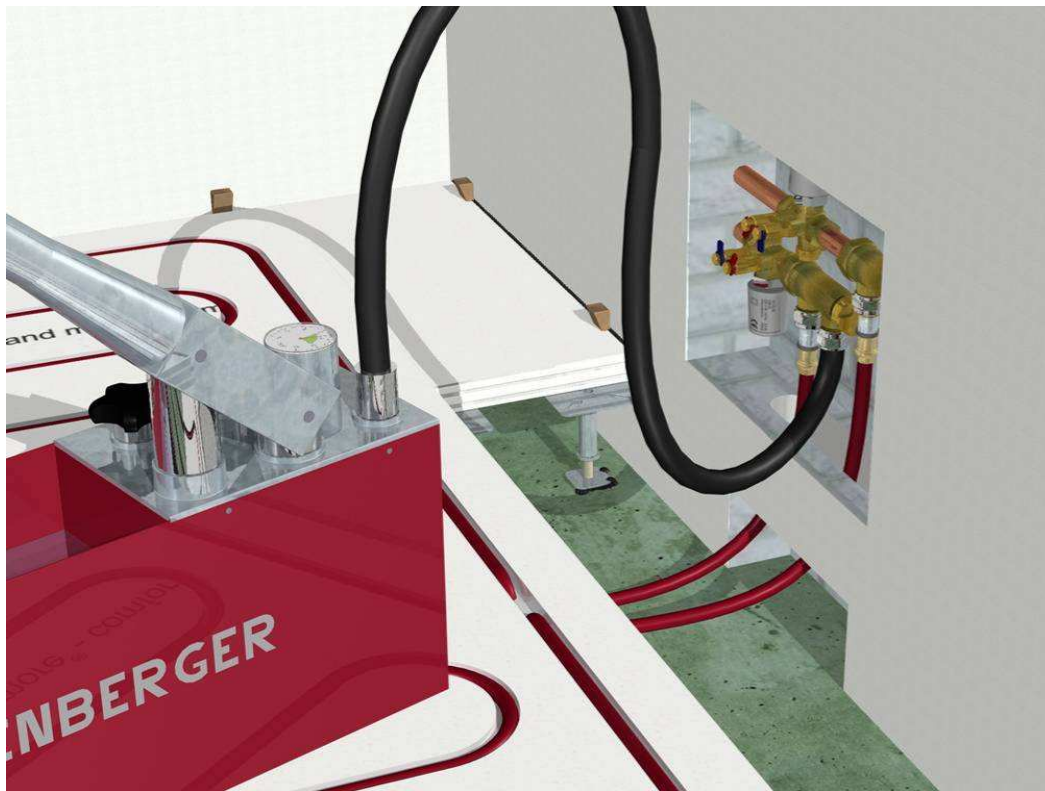
Clipping the heating tubes into the grooves.



Connect the other end of the tube with the suited fitting to the return at the manifold.

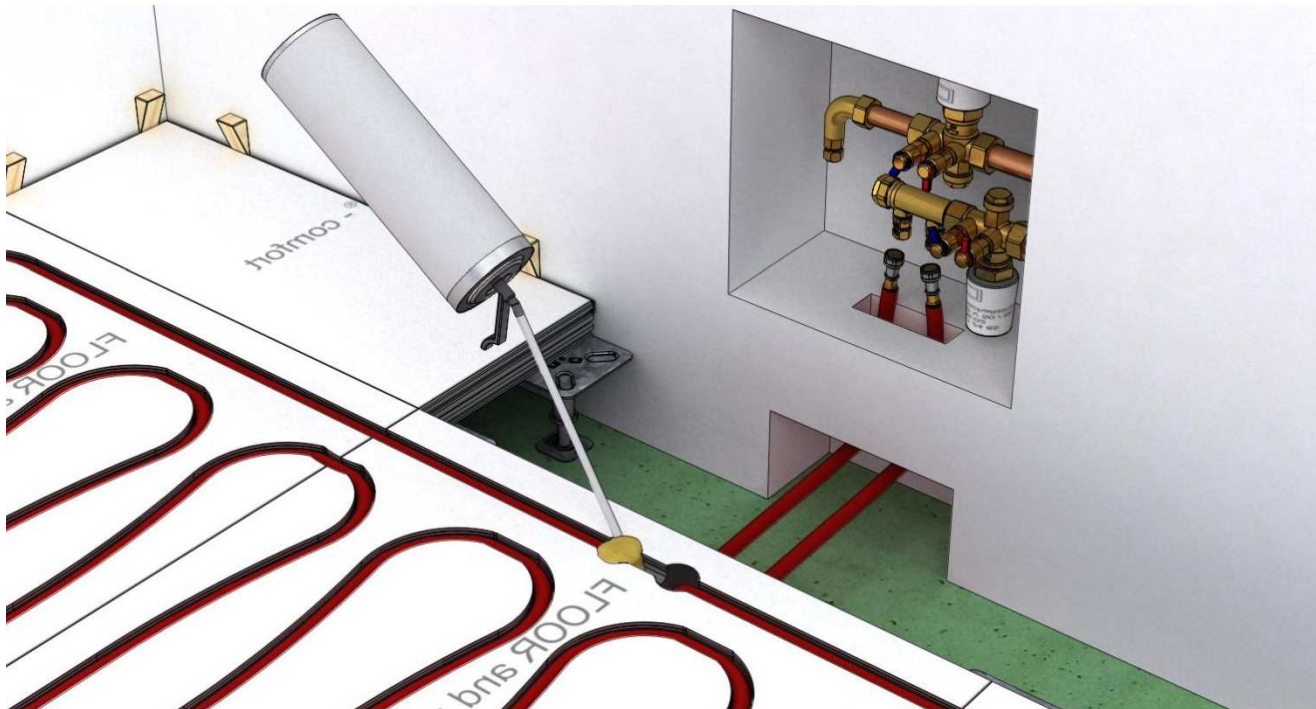


Execute a tightness test. The pressure (at least 6 bar) of the tightness test has to be maintained with the filling of the grooves with the heating tubes. A tightness test printout (PKSB-11) has to be issued.

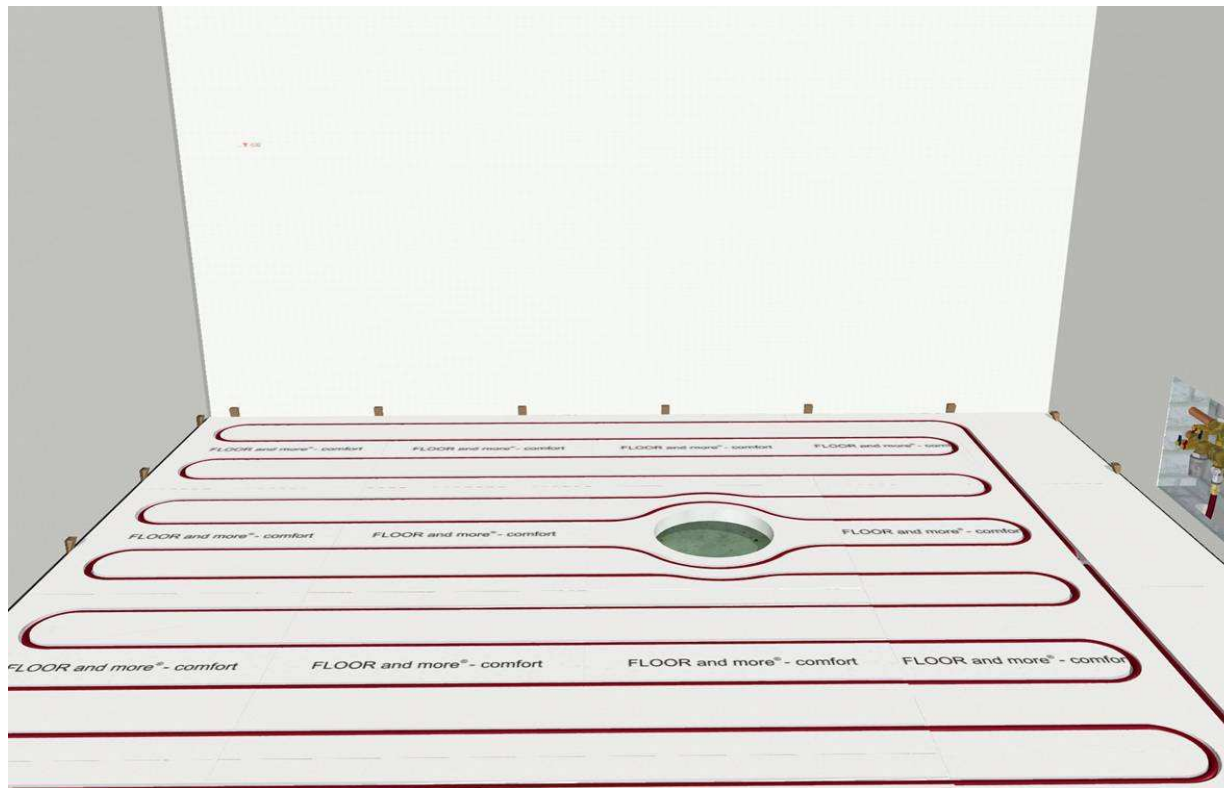




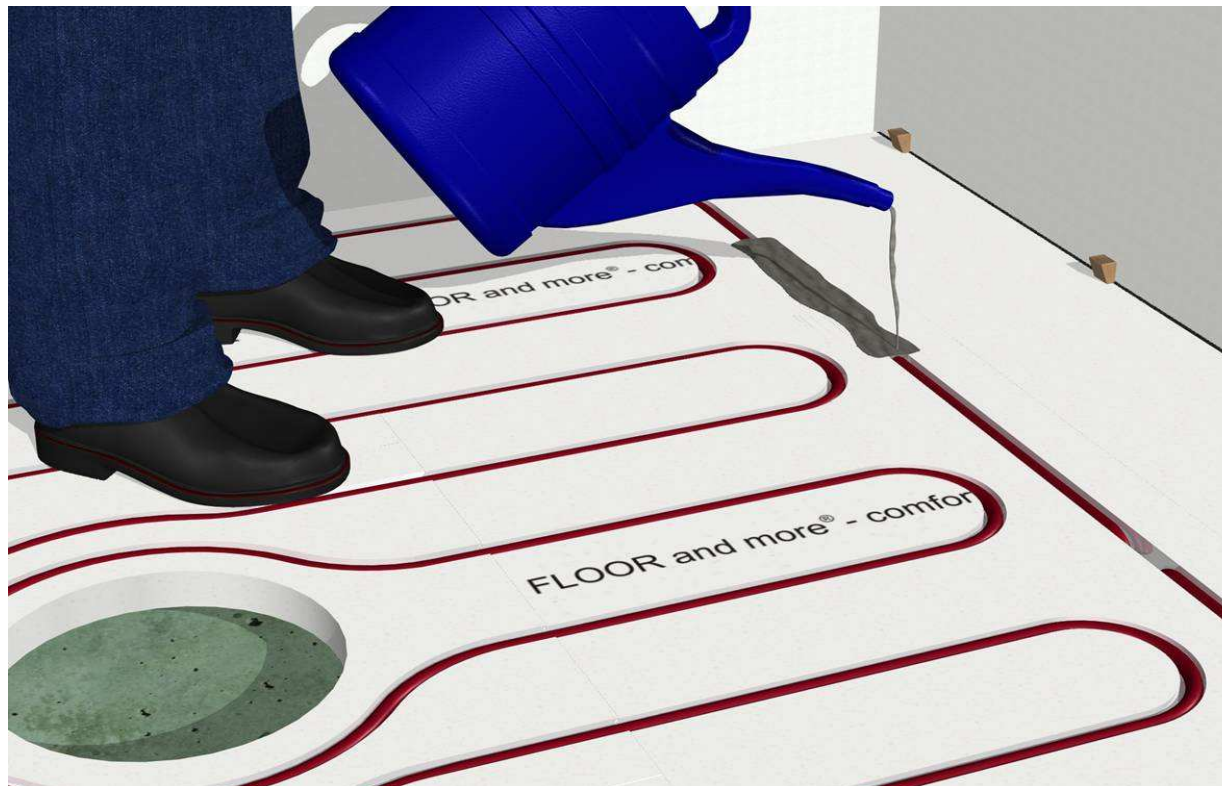
Close the bushings for the heating tubes with PU foam. Cut-off flush to the surface after drying.



Close the floor with standard FLOOR and more® panels.

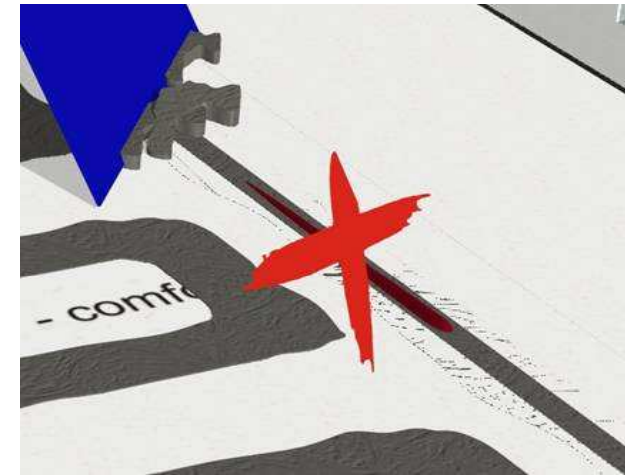


Pour the Lindner filling compound into the heating tube grooves. Mixing pumps can also be used with larger areas. At spots where the filling compound subsides, it has to be filled once more.

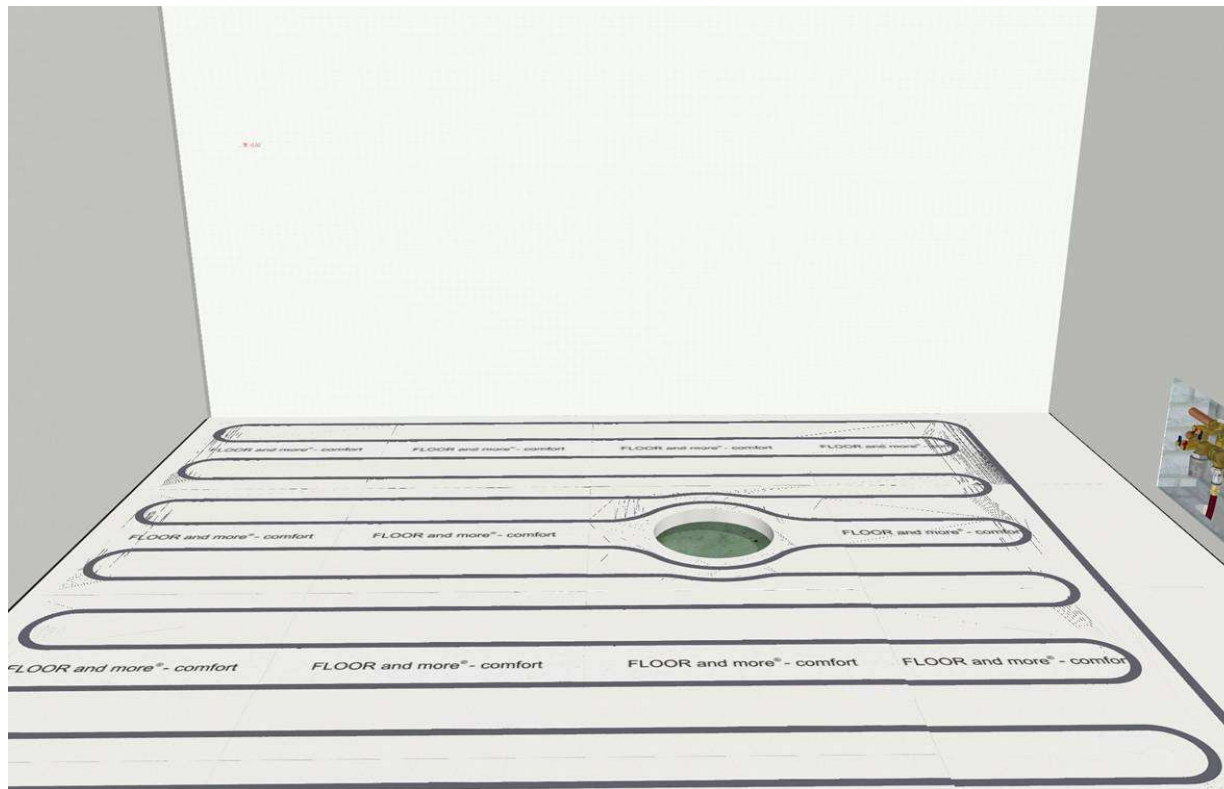




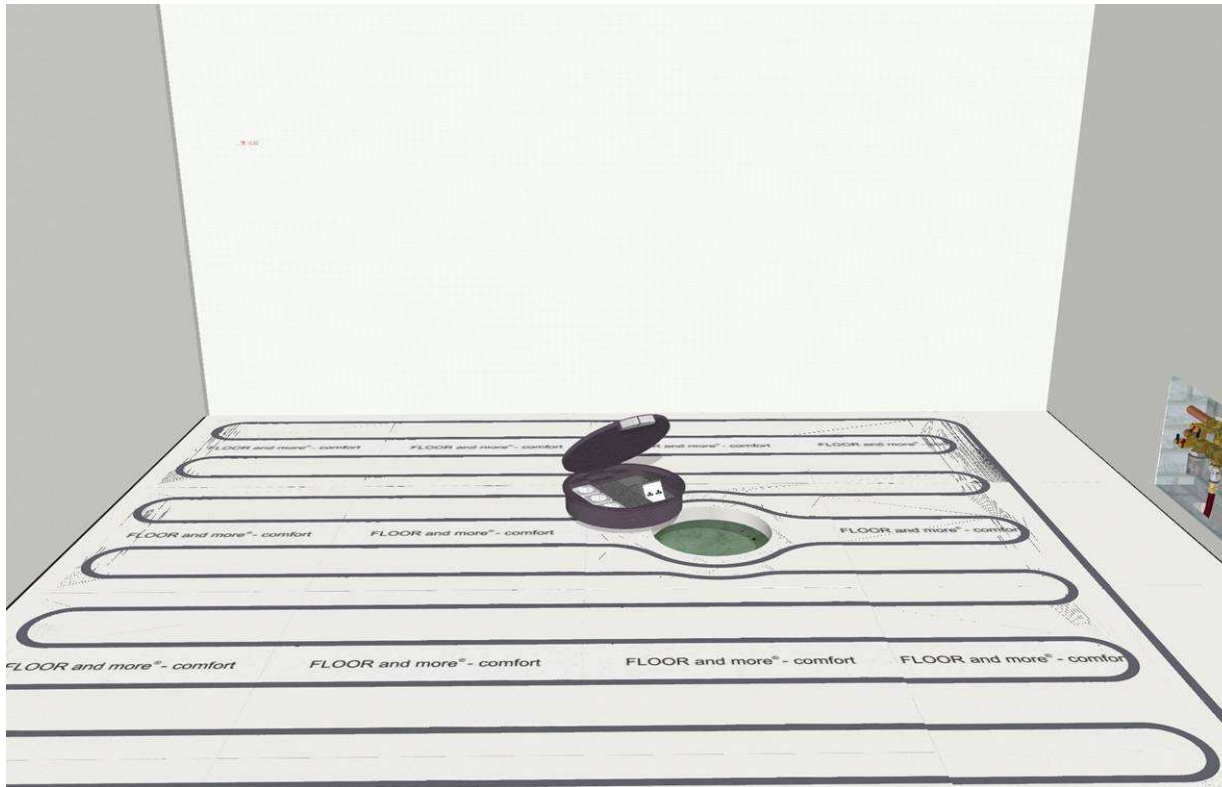
Remove the on the surface dried excess filling compound with a scraper.



An initial operation test acc. to PKSB-14 has to be executed before the application of the covering. This may not be executed until 4 days after the filling of the heating tubes.



Install electrical outlet boxes.



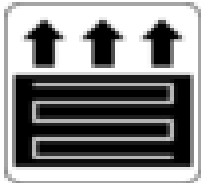
# Installation guideline FLOOR and more<sup>®</sup> comfort

## Coverings

Robust coverings, such as stone or parquet can be glued directly to the FLOOR and more<sup>®</sup> comfort surface. We generally recommend to apply a suited levelling compound with elastic and textile coverings.

### NOTE:


It has to be paid attention that the coverings are suited for the use on floor heatings.



Symbol for coverings which are suited for the use on floor heatings

# Installation guideline FLOOR and more® comfort

## PKSB-11 Tightness test



Product Management Flooring Systems  
**PKSB-11**  
Tightness test acc. to DIN EN 1264-4

---

Client: \_\_\_\_\_

Building /  
real estate: \_\_\_\_\_

Building sector / part /  
floor / flat: \_\_\_\_\_

Plant section: \_\_\_\_\_

**Requirements:**

The tightness of the heating circuit is secured through a water pressure test shortly before the grouting. The test pressure in this case is, notwithstanding the VOB, twice the operating pressure but at least 6 bar. This pressure has to be kept during the grouting of the heating lines.

**Documentation:**

Maximal admissible operating pressure \_\_\_\_\_ bar

Test pressure \_\_\_\_\_ bar

Straining duration \_\_\_\_\_ hours

The tightness has been assessed but no permanent deformations occurred at any component.

**Confirmation:**

Location / date	Constructor / client Stamp / signature
Location / date	Site manager / architect Stamp / signature
Location / date	Heating installer Stamp / signature


---

Printout of the tightness test    PM Flooring Division    Page 1 of 1    Rev. 01    25.4.2008  
Lindner AG, P.O. Box 1180, 94420 Arnstorf, Germany, Tel. +49 (0)6723-20-0, Fax +49 (0)6723-20-2147, www.Lindner-Group.com, info@Lindner-Group.com



# Installation guideline FLOOR and more® comfort

## PKSB-14 Initial operation test

	Product Management Flooring Systems <b>PKSB-14</b> Initial operation test			
Project: _____				
Specialised company for heating systems: _____				
Floor installer: _____	Name / Address _____			
Facility data: _____sqm				
Brand: _____				
Tightness test executed at the: _____ Test pressure: _____ (bar)				
Make the valve pre-adjustment of the heating circuit valves after the rinsing of the heating facility!				
The initial operation test may not be executed until 4 days after the filling of the heating tubes.				
	<b>Date</b> <b>Signature</b>			
Finish of the filling of the heating tube grooves:	_____			
Start of the initial operation test:	_____			
The initial operation test starts with a supply temperature of between 20 and 25 °C which has to be kept for at least 3 days:				
Afterwards the maximum system temperature has to be adjusted and to be kept for at least 4 days:	_____			
The heating can be turned off afterwards: _____				
Operation condition of the facility and outdoor temperature with delivery: _____				
The floor heating was free of building materials and other covering / loads:      (Yes / No)				
Confirmation (Date / Stamp / Signature)				
Client / Contractee resp. Planner/Architect	Specialist company Floor	Specialised company for heating systems		
Initial operation test	PM Flooring Systems	Page 1 of 1	Rev. 00	15.04.2008
<small>Lindner AG, P.O. Box 1180, 94420 Amstorf, Germany, Tel: +49 (0)8723-20-0, Fax +49 (0)8723-20-21 47, www.Lindner-Group.com, info@Lindner-Group.com</small>				

## Lindner AG

Bahnhofstraße 29  
94424 Arnstorf  
Deutschland / Germany  
Telephone +49 (0)8723/20-0  
Fax +49 (0)8723/20-21 47  
info@Lindner-Group.com  
www.Lindner-Group.com

Subject to change without notice.  
This document is our intellectual property. It may not be either reproduced,  
commercialised, distributed or presented to other individuals for commercial  
purposes without our approval.

Stand: Rev. 01, 08/2012, MRSB-07