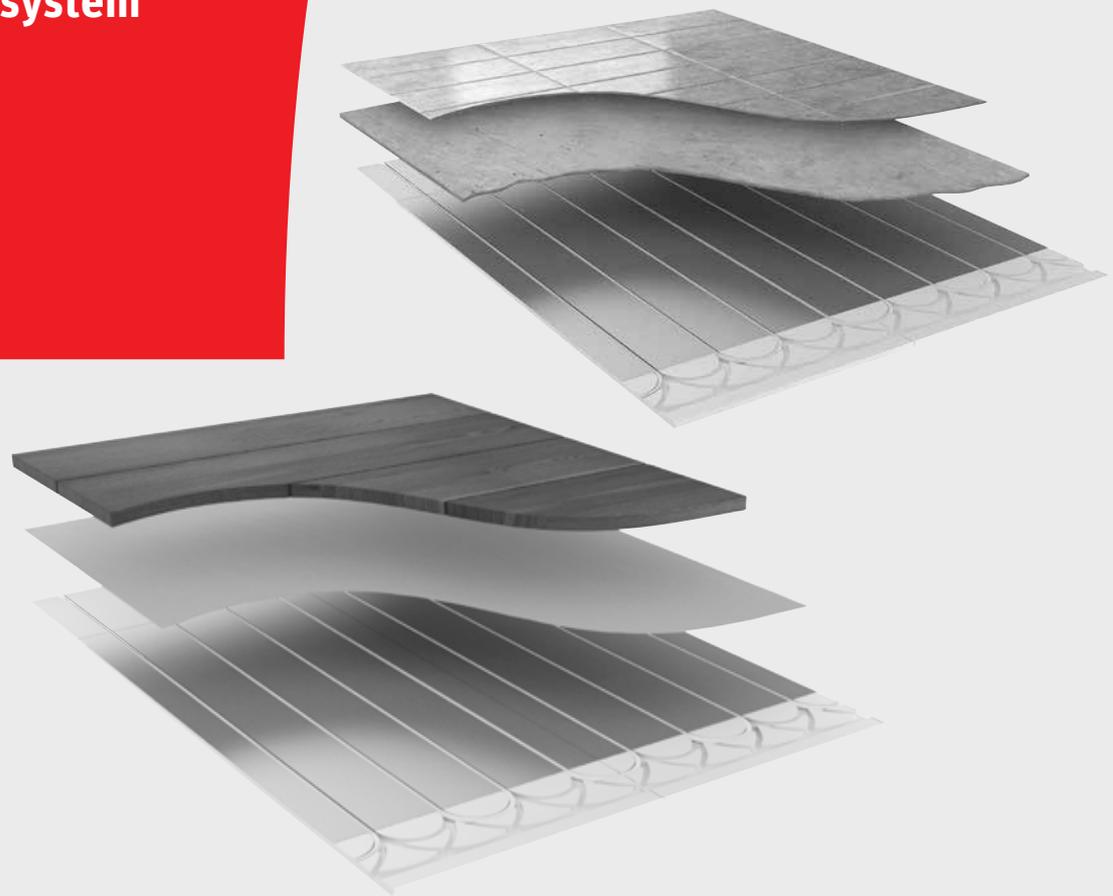


Roth Compact® system

Installation



German quality since 1947

Installation, Roth Compact® system

Description

The Roth Compact® system is specially developed for the installation of underfloor heating where a rapidly adjustable system with low overall installation height is required. As a result, this system is particularly well-suited to both new construction and renovation.

The Roth Compact® system can be installed as a floating system in all locations where a robust, load-bearing base made of wood or concrete is available. The system can be completed with an optional wooden floor or carpet "as a floating installation".

If the system is finished off with a tiled floor, the tiles must be bonded directly onto the system plates. Roth Compact® FLEX FIX, a specially developed adhesive offering high strength, outstanding adhesion and flexibility, must be used for bonding the system in place.

Please see also our special guides which describe in detail how to create a structure depending on the structure of the subfloor and using tiles for the floor, and also depending on what the room is used for (wet/dry). These guides can be downloaded from our website, or contact Roth UK for support.

Roth Compact® system 24/16

Total installation height of 24 mm for 16 x 2 mm Roth X-PERT S5® underfloor heating pipes, pack: 8.9 m². The installation height excludes the floor.

Roth Compact® system 14/10.5

Total installation height of 14 mm for 10.5 x 1.3 mm Roth X-PERT S5® underfloor heating pipes, pack: 5.2 m². The installation height excludes the floor. The Roth Compact® system is packed in boxes of 8.9 m² for the 24 mm model and (5.2 m² and 8,9 m²) for the 14 mm model. Turnover plates and running plates are included in the packaging in all pack sizes so that it is easy to turn the underfloor heating pipes and run the feeder pipes to the room in question.

The easiest way to describe the advantages of the Roth Compact® system is to sum them up: easy installation, low installation height, high heat output, fast adjustment, plenty of comfort, can be used on most surfaces, optional floor, and superior quality.

Technical data

Roth Compact® system 24/16 UK No. 7339318024
(installation height 24 mm), 8.9 m²

Roth Compact® system 14/10.5 UK No. 7339318010
(installation height 14 mm), 8.9 m²

Each pack contains:
System plates 1220 x 610 mm 10 pcs.
Turnover plates 202 x 610 mm 6 pcs.
Running plates 610 x 101 mm 12 pcs.

Roth Compact® system 14/10.5 UK No. 7339318006
(installation height 14 mm), 5.2 m²

Each pack contains:
System plates 1220 x 610 mm 5 pcs.
Turnover plates 202 x 610 mm 6 pcs.
Running plates 610 x 101 mm 12 pcs.

Roth Compact® turnover plates
Turnover plates 24/16 UK No. 7339318824
Turnover plates 14/10.5 UK No. 7339318810
Each pack contains:
Turnover plates 202 x 610 mm 10 pcs.
Density for EPS: 50 kg/m³
Compressive strength, EPS: 400 kPa
Max. general load 2.0 kN/m²
Insulation value: 0.032 W/m K

Recommended max. pipe lengths:
Roth X-PERT S5® 10.5 x 1.3 mm max. 80 m
Roth X-PERT S5® 16 x 2.0 mm max. 120 m

Pipe usage at C/C 152 mm 6.5 m/m²
Pipe usage at C/C 304 mm 3.3 m/m²

Applications: Construction and renovation

Accessories

Roth Compact® FLEX FIX, 25 kg UK No. 7339349818
Roth Clima Comfort FLOW, 25 kg UK No. 7339349825
Roth Compact® Primer, 10 kg UK No. 7339349810
Roth Compact® turnover plates, (14/10.5) 10 pcs. UK No. 7339318810
Roth Compact® turnover plates, (24/16) 10 pcs. UK No. 7339318824
Roth Clima Comfort perimeter insulation (50 mm) 25 m. UK No. 7339259025

Consumption of FLEX FLIX adhesive

Bonding of	Consumption approx. kg/m ²	Curved notched trowel	Min. joint width
Compact system against concrete	4 kg	6.5 x 13 mm	
Tiles 30 x 30	4 kg	6.5 x 13 mm	5.0 mm
Tiles 60 x 60	7 kg	10 x 15 mm	7.0 mm

Consumption of FLOW and Primer

Casting of	Consumption kg/m ²
Roth Compact Primer/1 - 2 mm	1 - 1.5 kg
Clima Comfort FLOW/15 mm	17 kg
Clima Comfort FLOW/20 mm	34 kg

NOTE: All tile grout used with the Compact® system must be elastic, such as Alfix CeraFill 10.

*If you cast a floor on top of the Compact® plates, e.g. using Roth FLOW filler, the plates must be primed first and perimeter insulation must be placed along the walls. The perimeter insulation safeguards the floor against stresses and cracking when it is subjected to thermal load, etc. When tiles are to be used for the flooring, larger floor areas must be divided up using expansion joints into fields not exceeding 40 m². This must **not** be done using FLOW filler, but by creating silicone joints or similar in the layer of tiles.*

Installation, Roth Compact® system

Important information

Please read the entire installation guide before starting work.

- › This work must be carried out by or in consultation with a responsible HVAC fitter.
- › Temperature resistance: -20°C to +50°C.
- › The plates must be kept at a temperature of at least +10°C while the floor is being installed (applicable until the entire floor is complete).
- › During installation, the plates must not be exposed to direct sunlight if there is a risk of the temperature of the surface exceeding +50°C before the floor is laid. Cover the Compact® system with floor felt if sunlight is shining directly on it.
- › The Roth Compact® system can be laid on more or less all types of load-bearing floor structure with an even, consistent surface. The maximum permitted subfloor level difference is 1 - 2 mm per metre. If the subfloor is made of vinyl, tiles or PVC, it must first be approved by a floor fitter before it can be used as a base. If the Compact® system is to be laid on an existing tiled floor, this must be rubbed and primed to ensure optimum adhesion.
- › When installing the system on a load-bearing wooden base, the subfloor must have a minimum chipboard depth of 22 mm or equivalent. The centre-to-centre spacing of the underlying joists must not exceed C/C 600 mm. If tiles are to be laid on the Compact® system, the base must be a plate floor and not a plank floor.
- › If a tiled floor is to be laid on a wooden floor in a wet room, min. 19 mm waterproof structural veneer must be used on joists, with max. spacing of C/C 400 mm. Otherwise, please follow instruction 252. In addition to bonding, countersunk screws 4 x 50 mm must always be used for wooden subfloors. Approx. 35 screws are used for each Compact plate, and approx. 7 screws are used for turnover and running plates. These screws must not replace the adhesive, but are to be used for additional security.
- › If you require a floating floor (parquet, laminate or similar), the Roth Compact® system is laid in a floating configuration and finished off with floor felt or 3 mm foam before laying the floor. Depending on the surface of the subfloor, it may be necessary to lay floor felt to prevent noise between the subfloor and the EPS.
- › Only Roth underfloor heating pipes are to be used. We recommend only X-PERT S5® underfloor heating pipes or Alu-LaserPlus® pipes.

When installing tiles on the Compact® system

- › If tiles are laid directly on the Roth Compact® system, all plates must be bonded to the subfloor.
- › Roth Compact® FLEX FIX adhesive must be used. The instructions on the packaging must be followed carefully. Mix approx. 6 litres of water into 25 kg (1 sack), but max. 6.6 litres of water into 25 kg. Roth accepts no liability if other types of adhesive are used. If you wish to use an adhesive other than Compact® FLEX FIX, it is possible to prime the Compact® system with Roth Compact® Primer.
- › Take particular care to ensure that the base is entirely clean and free of oil, grease, wax and suchlike. It must be solid, with no loose plaster, cement sludge or cracking. If the base is highly absorbent, priming is recommended before laying Roth Compact® FLEX FIX. Adhesive required: approx. 4 kg/m².
- › Priming is required before bonding in all instances where this is considered necessary in order to achieve the best possible adhesion to the load-bearing base, e.g. old concrete, plasterboard and wood.
- › When the tiles are to be bonded to the Compact® plates, Roth Compact® FLEX FIX must again be used in the ratios specified above. Adhesive required: approx. 4 kg/m². The plates must be vacuumed thoroughly clean and wiped with an ammonia solution in the ratio 3 - 4 caps to 10 litres of water before applying the adhesive.
- › Take care to observe the ratio of water in the adhesive. Too much water in the adhesive will impair the adhesion and result in the adhesive failing to stick properly to the aluminium plates.
- › Roth Compact® FLEX FIX must not be used as a filler. Instead, use Roth Compact® Primer together with Roth Clima Comfort FLOW in a thickness of min. 15 mm thick. The Compact® plates must always be primed when placing Roth Clima Comfort FLOW filler on top of the plates.
- › Before starting work, it is a good idea to carefully plan the laying of the pipe, starting at the manifold.

NOTE: Please see also our special guides which describe in detail how to create a structure depending on the structure of the subfloor and using tiles for the floor, and also depending on what the room is used for (wet/dry). These guides can be downloaded from our website, or contact Roth UK for support.

Installation, Roth Compact® system

Installation guide

The subfloor must be load-bearing, firm, even and stable before starting installation. If the subfloor is uneven, it must be levelled out using any screed before starting installation.

The turnover plates are supplied as double plates that are easily broken into two plates.

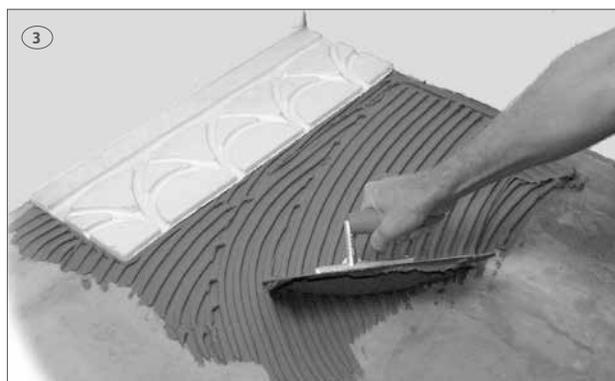


The running plates are supplied in the same way but are easily broken into 4 plates.



If tiles are to be laid directly on the Compact® plates, all plates must be bonded to the subfloor. Roth Compact® FLEX FIX must be used for bonding. Always follow the instructions on the packaging, and if necessary use primer on the base.

If the floor is a parquet, laminate or similar floor, the Compact plates must be laid in a floating configuration with no bonding.

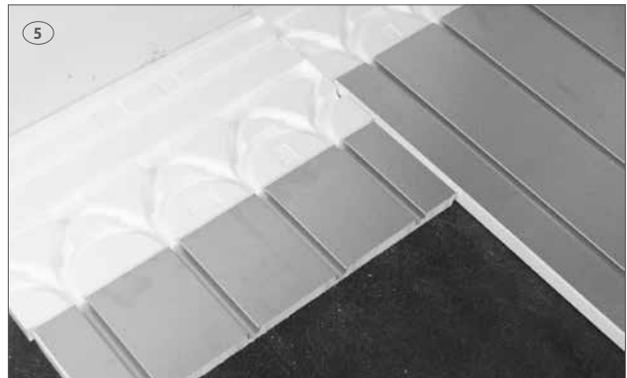


When the subfloor is made of wood and the floor is to be tiled, the Compact® plates must be screwed onto the subfloor as well as using adhesive. 4 x 50 mm countersunk screws must be used here. Approx. 35 screws are used for each plate, and approx. 7 screws are used for turnover and running plates. With this structure, the plates must always be primed and at least 15 mm Clima Comfort Flow filler must be placed on top of the Compact® system if the joists have a C/C spacing of more than 40 cm or the floor is in a wet room.



Installation, Roth Compact® system

Start laying the plates at the first turnover plate.
The Compact® plate is cut at the point where the first row meets the next turnover plate.
The plate left over is used as the first plate for the next row.



A jigsaw is used when cutting the Compact® plates.
The plates are cut from the back.



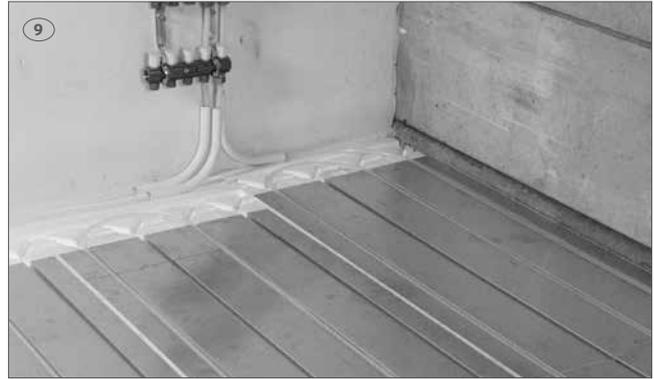
Burrs from the pipe grooves after cutting must be removed using a file to avoid damaging the underfloor heating pipe.



Carry on laying the plates. If there is a gap of less than 100 mm in width up towards the wall, the running plates can be used to fill the gap.



Start laying the underfloor heating pipe by fitting the manifold. The pipe is connected to the supply line (top rail) of the manifold.



The pipes are laid as shown in the pipe layout. Make sure that the pipes are pushed all the way down into the groove so that they are not located above the plate itself. The aim of this is to avoid problems with noise, particularly if a floating floor is to be laid. With the turnover plates, the pipes must be laid as close to the inner circle as possible to ensure that they have plenty of room to expand.



Parquet/laminate flooring:

If parquet or laminate flooring is being laid, a floor foam or similar must be laid on the plates first. The installation instructions from the supplier of the wooden flooring must always be followed.

Carpet or vinyl flooring:

If the floor is carpeted or similar, flooring chipboard or equivalent must be laid on the Compact® plates first.

Wet room membrane for the Compact system:

If the Compact system is used in a wet room, the plates must always be primed and a layer of Clima Comfort FLOW filler 10 mm thick must be placed on top before the wet room membrane and tiles. Applicable rules for the sealing of wet rooms must be followed in wet rooms.

The floor is ready for tiles to be laid after 6 - 8 hours (at 18°C and 50% RH), and this is also done using Roth Compact® FLEX FIX.

Grouting tiles

Grouting can be carried out after 6 - 8 hours (at 18°C and 50% RH), and a grout with elasticity must be used. Be aware of the max. tile size and min. joint width requirements. See roth-uk.com for more information, or contact us for direct support.

Drying time in connection with start-up:

The drying time for the structure is one week without underfloor heating and then one week with underfloor heating. Max. supply temperature 25°C. Alternatively 2 weeks with no underfloor heating at all, followed by normal operation.

We reserve the right to make changes to the material with no prior notice.



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