



Brochure

UNDERFLOOR HEATING | WALL HEATING | CEILING HEATING



The most versatile and complete system
for heating and cooling any room



THIN



QUICK



LIGHT



WATER



SUSTAINABLE

THE MOST VERSATILE AND COMPLETE SYSTEM FOR HEATING AND COOLING ANY ROOM

At WARP Systems®, we have innovation flowing through our veins. So we came up with the idea of developing the Netherlands' thinnest, easiest-to-install, water-based underfloor heating system. We felt it should be possible for existing systems to be thinner, faster and lighter, as well as easier to install, with less waste. And we succeeded: we have since helped professionals and DIYers with thousands of installations. But we nevertheless continue to innovate so that our systems remain the best solutions, today and tomorrow.

Installing traditional underfloor heating is generally a pretty challenging task. Messy work, like milling and breaking, is often required, leading to inevitable rubble and dust. Space restrictions are also common, and existing skirting boards and doors regularly limit the maximum installation height available.

Dutch manufacturer WARP Systems® has found a solution for all of these challenges. Our systems provide cooling and heating and can be installed quickly and easily in all situations, by professionals and DIYers!





Underfloor heating within a day



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Suitable for DIYers, professionals and architects

The most versatile and complete system for everyone





DIYer

- ✓ Thinnest system available for heating and cooling
- ✓ Saves energy thanks to the quick response time
- ✓ Future-proof and maintenance-free
- ✓ Comfortable warmth without cold spots
- ✓ Light in weight: quick and easy to install

PROFESSIONAL

- ✓ Fast, professional advice
- ✓ Very low installed height, from just 15mm
- ✓ Can be connected to all heating and cooling sources
- ✓ Thin and light in weight: ideal for refurbishment projects
- ✓ Quote within 24 hours on working days

ARCHITECT

- ✓ Space-saving and aesthetically attractive
- ✓ Climate-conscious and future-proof
- ✓ Very low installed height, from just 15mm
- ✓ High-quality production in the Netherlands, and direct contact with the manufacturer
- ✓ Complete package for underfloor, wall and ceiling heating and cooling

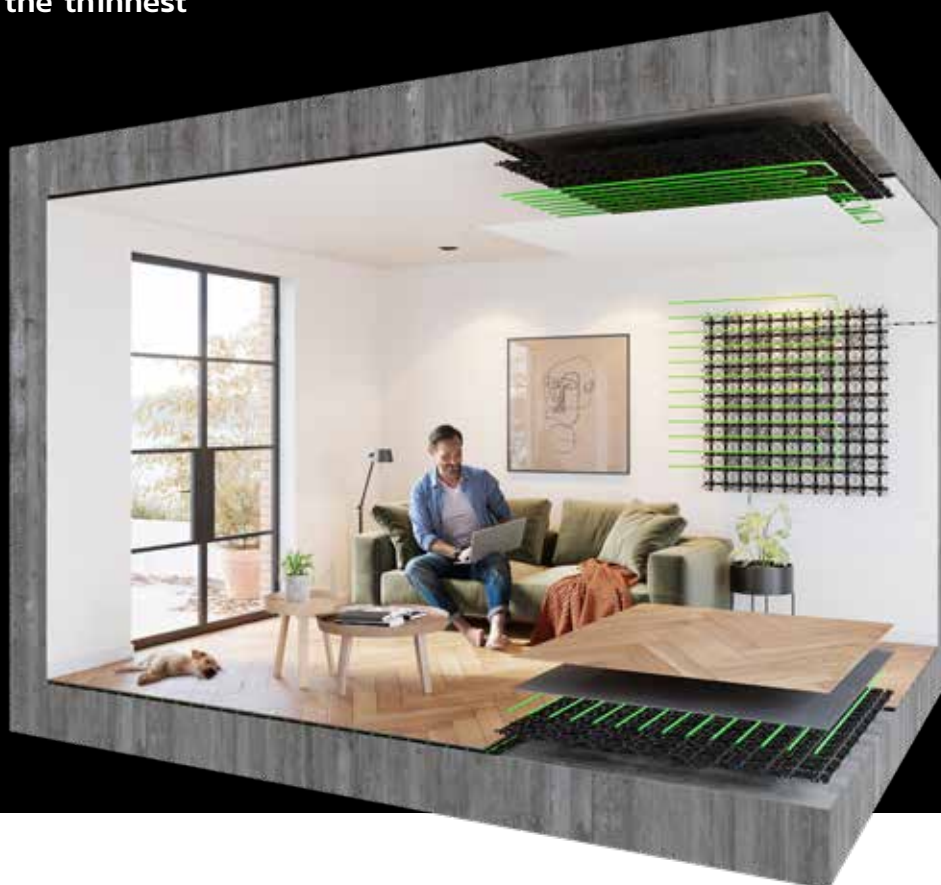
SpeeTile system for floors, walls and ceilings

SpeeTile

SpeeTile is suitable for use in underfloor heating, wall heating and ceiling heating and cooling.

This 'wet construction system' is the thinnest available hydronic system for underfloor heating and cooling. The SpeeTile system is suitable for use as the primary source of heating.

The system can be installed on many types of existing subfloors, even on (stable) wooden subfloors.



- ✓ Suitable for use as primary source of heating
- ✓ Easy installation with patented click-break-slide system
- ✓ Very low installed height, from just 15mm
- ✓ Quick response time
- ✓ No cutting waste
- ✓ Wet system with levelling layer
- ✓ The floor can be walked on after four hours
- ✓ Suitable for use in underfloor heating, wall heating and ceiling heating
- ✓ Can also be finished with plaster or cob when used in walls or ceilings



FOR ALL FLOATING, GLUED AND POURED-IN-PLACE FLOORS, SUCH AS LAMINATE, PARQUET, TILES, PVC OR CAST FLOORS.



SpeeTile10 is the thinnest water-based heating system (15mm) and perfect for situations where little installation height is available.

SpeeTile12 is very suitable for situations where more installation height is available (from 35mm). This variant can be finished with cement or anhydrite and is widely used in larger spaces, such as industrial halls.

SpeeTherm

Are you looking for a compact, lightweight, dry construction underfloor heating or cooling system with a quick response time? WARP Systems® has the answer with SpeeTherm.

This system combines lightweight and insulating qualities, along with a minimal installed height to provide heating (and cooling, in combination with a heat pump). Perfect in combination with laminate, parquet or Duoplank, for example. SpeeTherm is suitable for use as the primary source of heating.



- ✓ Suitable for use as primary source of heating. No gluing or screwing required
- ✓ Very low installed height, from just 15mm. Quick response time
- ✓ Dry construction system, can be used immediately after installation
- ✓ Suitable for immediate finishing with floating, rigid final floors: laminate, parquet, Duoplank
- ✓ Suitable for flat surfaces, such as concrete or (non-stable) wooden subfloors
- ✓ Finishing with flexible final flooring (such as click PVC or marmoleum) is also possible in combination with use of Jumpax Basic.



SUITABLE FOR FLOATING, RIGID FLOORS, SUCH AS LAMINATE, PARQUET OR DUOPLANK.



A dry construction system is easy to install on flat wooden subfloors, without a wet finish.

This makes **SpeeTherm** perfect as a flat substrate for a floating, rigid final floor, such as laminate or parquet. Because cutting chases is unnecessary and the material is so thin and light, the system is frequently used for renovation, even in listed buildings. Also in flats or upstairs apartments where traditional underfloor heating is not allowed.

SpeeTherm30: all the benefits of the SpeeTherm system, for when you have more space available. With 30mm installation height, this system has an (insulating) Rd value of 1.

The right underfloor heating for your situation





The right underfloor heating for your situation

How do you make the right choice for your situation?

There are countless providers and systems, each with their own benefits. But how do you choose the right system? Handy: WARP Systems®' innovative low-temperature water-based systems provide the solution! After all, there is a big difference between traditional heating systems and WARP Systems®' thin, quick systems. Our systems are suitable for use as the primary source of heating.

Underfloor heating without milling and breaking

WARP Systems® provides a simple, compact, lightweight underfloor heating system that does not require any milling and breaking! Ultra-thin and easy to install, for professionals and DIYers.

Extra energy-saving

Low-temperature, water-based underfloor heating is more energy-efficient than radiators and future-proof. Traditional systems generally warm up more slowly than radiators, which means you have to leave them on continuously.

SpeeTile and SpeeTherm from WARP Systems® reach temperature quickly: they can be adjusted quickly, and the temperature can be set lower at night.

Underfloor heating and cooling

Great for summer: The systems from WARP Systems® can also cool during the summer, in combination with a suitable primary heat source! For example, when used with a heat pump.

The 10 benefits of underfloor heating

1. NO COLD FEET

The first benefit is the one you hear everyone who has underfloor heating talk about: you no longer have cold feet. As the underfloor heating radiates upwards, your floor is warmed. Especially in winter, this is nice and very comfortable.



2. LOWER ENERGY COSTS

With underfloor heating you have lower energy costs than with radiators, for example. With low-temperature underfloor heating (LTH), the costs are even lower than with traditional underfloor heating. This is because the water temperature required to heat a room is lower. The central heating boiler does not have to supply as much hot water and therefore uses less energy. That results in lower energy costs.

3. SAVE SPACE

In most cases, you use underfloor heating as the main heating, instead of radiators. So you do not have to hang anything on the wall and have much more flexibility in terms of where to place furnishings in the room.

4. HEAT QUICKLY

With low-temperature underfloor heating (but not with traditional underfloor heating!) combined with a low installation height – as is the case with underfloor heating from WARP Systems® – a room warms up exceptionally quickly. The closer the underfloor heating is to the final flooring, the faster it heats up. This means that heat can be felt in a room within 30–45 minutes. So there is no need to turn on the heating hours ahead of time, and you can turn it down at night without having a cold home all morning. Because you use the underfloor heating only when you need it, this is another way you save energy.



5. BETTER AIR QUALITY

With radiators, heat rises to the ceiling and later sinks again. This causes the air to circulate, resulting in dust bunnies and suspension of dust particles in the air. Water-based floor heating makes use of radiant heat. This does not cause air movement, so the warm air does not rise. Radiant heat is felt everywhere, and dust does not return to the air, improving the air quality in a room. This is beneficial to our health, especially for people with certain allergies.

6. NO MAINTENANCE REQUIRED

Underfloor heating does not require any maintenance. Your central heating boiler or heat pump obviously needs regular maintenance, but the underfloor heating itself does not need annual servicing. So you don't have to think about it, that means one thing less you have to arrange.

7. SAFE

Do you have young children? They can burn themselves on a hot radiator. With underfloor heating you eliminate that risk. The heating is located safely below the floor.

8. COOLING WITH UNDERFLOOR HEATING

Will you be connecting your low-temperature underfloor heating system to a heat pump? Then you can also cool! Then cold water, rather than hot water, flows through the underfloor heating pipes. This has a cooling effect in the room, and that means additional comfort during the summer. Especially in insulated rooms, where the air stays warm for a long time in the summer and is difficult to get rid of.

9. UNIFORM HEAT

As the underfloor heating is distributed over the entire floor area, this radiant heat can be felt throughout the room. With convection heat at a radiator, the room is warmer near the ceiling than near the floor. We experience these temperature differences as unpleasant. The closer together the underfloor heating pipes are, the more even the heat is.

10. COMFORT

The last point actually also sums up all the other benefits of underfloor heating: comfort. Underfloor heating is nice and works quickly. The heat is evenly distributed and has health benefits. The quality of your living environment is improved. So underfloor heating improves comfort.

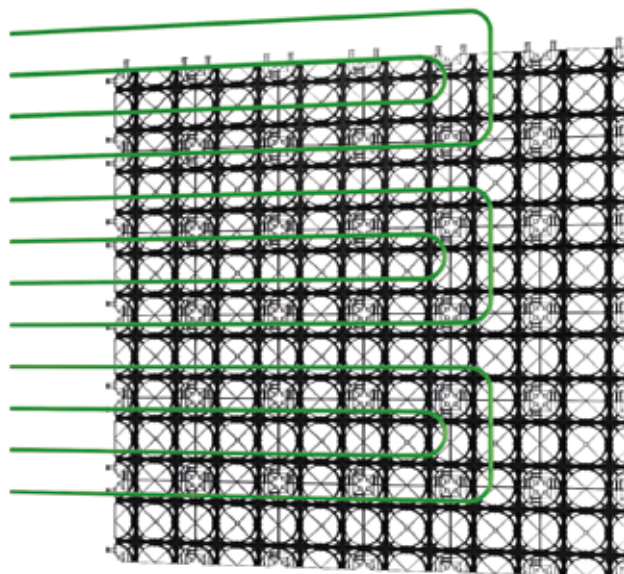


A wall that gives you a warm hug

WALL HEATING AND COOLING: Heat and comfort from the wall

The perfect solution for a stylish, extra-comfortable interior without radiators.

Wall heating turns the wall into a large, invisible radiator that distributes the heat evenly throughout the space. Wall heating is an excellent solution if there is a distinctive or historical floor that needs to remain intact. Combined with a heat pump, cooling via the walls is also possible! Our systems are suitable for use as the primary source of heating.

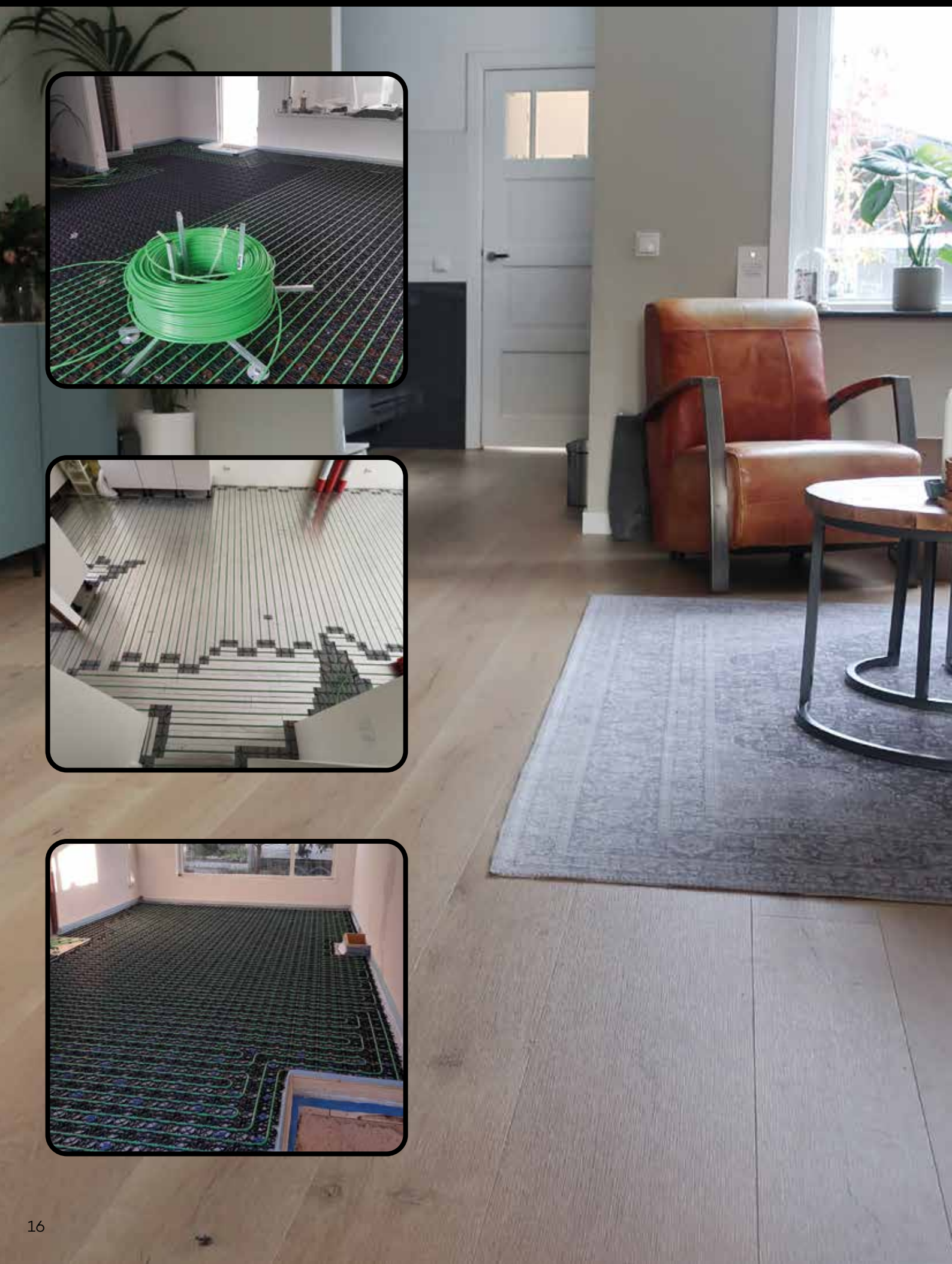


SpeeTile 10 is very suitable for wall heating (and cooling, in combination with a heat pump). The system's modular mats minimise installation height, which saves space. Due to its open structure, SpeeTile10, in combination with a stucco layer, is very suitable for incorporation in walls.

- Even heat distribution and maximum comfort
- Just 20mm thick, including finished surface
- Future-proof and climate-conscious, thanks to low energy consumption
- Suitable for use as primary source of heating
- Radiant heat: pleasant for those who suffer from asthma or other respiratory conditions
- Always fits around sockets, without measuring or cutting
- With the SpeeTrace heat detection sticker, you can still drill into the walls



DIY heating installation



DIY DO-IT-YOURSELF



YOU CAN EASILY INSTALL OUR SYSTEMS YOURSELF.

Installing heating regardless of the room and substrate? Our systems always fit and are suitable for many types of subfloor and final flooring. Receive clear instructions and informative instruction videos free of charge!



View our SpeedTile manual with all the instructions



View our SpeedTherm manual with all the instructions



Watch our installation instruction videos on YouTube



References from customers who have installed our systems themselves

CEILING HEATING AND COOLING: comfort through radiant heat



Experience ceiling heating like warm rays of sunshine

Ceiling heating produces uniform radiant heat similar to the warmth of the sun's rays. Every square metre of ceiling space is effectively utilised, and the radiant heat is not blocked by a piece of furniture or a rug, for example.

So you experience comfort in every room with the SpeeTile ceiling heating system. Combined with a heat pump, you can also cool the space during the summer. The system is suitable for use as the primary source of heating.

SpeeTile is lightweight, thin and compact.

Therefore, you save space and it is suitable for installation by professionals and DIYers.

Ceiling heating combines well with underfloor heating. It is also an ideal alternative when you cannot or do not want to install underfloor heating. With ceiling heating you are free to choose the installed height of the floor and any type of final flooring.

Do you already have a beautiful or historical floor? Then you can leave it intact and still enjoy comfortable heat.



- Even heat distribution and maximum comfort
- Just 20mm thick, including finished surface
- Future-proof and climate-conscious, thanks to low energy consumption
- Suitable for use as primary source of heating
- Radiant heat: pleasant for those who suffer from asthma or other respiratory conditions
- Always fits without measuring or cutting, even around spotlights and lighting sockets

The future-proof systems of WARP Systems®





SpeeTile WET construction system

Interested in underfloor heating in your home or office space? Choose here between the wet and dry construction systems.

Then see the overview and selection guide below. These will help you decide which is your ideal system for heating and cooling.

SpeeTile is suitable for:

- Stable, rigid subfloors, such as concrete, cement and wood
- All floating, glued and poured-in-place floors, such as laminate, parquet, tiles, PVC or cast floors



SpeeTile
on a concrete subfloor



SpeeTile
on a stable wooden subfloor

FINAL FLOORING	SUBFLOOR concrete/cement
LAMINATE (not glued)	Both systems
PARQUET (not glued)	Both systems
DUOPLANK (not glued)	Both systems
Click PVC (not glued)	SpeeTile or SpeeTherm + Jumpax Basic
TILES (bonded)	SpeeTile
POURED-IN-PLACE FLOOR (bonded)	SpeeTile
PARQUET (glued)	SpeeTile
LINOLEUM (glued)	SpeeTile or SpeeTherm + Jumpax Basic
PVC (glued)	SpeeTile or SpeeTherm + Jumpax Basic

SpeeTherm DRY construction system

SpeeTherm is suitable for:

- Stable and non-stable, flat subfloors, such as concrete, cement and wood
- For floating, rigid floors, such as laminate, parquet or Duoplank

JUMPAX BASIC

Jumpax Basic from Unifloor is a rigid, non-resilient underlay board that is placed over the SpeeTherm system. It creates a smooth, sturdy surface on which to lay your final flooring. It can also be used for glued floors, such as PVC or linoleum.



SpeeTherm
on a concrete subfloor



SpeeTherm
on a flat wooden subfloor

SUBFLOOR wood (stable/rigid)	SUBFLOOR wood (stable or non-stable/flat)
Both systems	SpeeTherm
Both systems	SpeeTherm
Both systems	SpeeTherm
SpeeTile or SpeeTherm + Jumpax Basic	SpeeTherm + Jumpax Basic
SpeeTile	See wall or ceiling heating
SpeeTile	See wall or ceiling heating
SpeeTile	See wall or ceiling heating
SpeeTile or SpeeTherm + Jumpax Basic	SpeeTherm + Jumpax Basic
SpeeTile or SpeeTherm + Jumpax Basic	SpeeTherm + Jumpax Basic

TECHNICAL SPECIFICATIONS

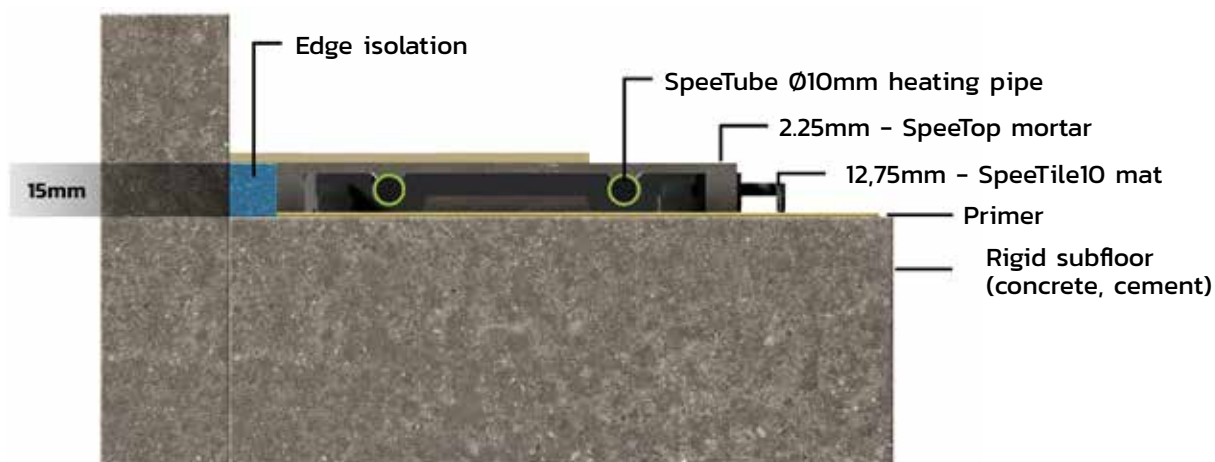
SpeeTile10

The 120x75cm mats are just 12.75mm thick and consist of 40 modular tiles measuring 15x15cm, which are made of recycled plastic and have an open structure. With the patented **click-break-slide system**, the tiles are extendible in length and width.



Pre-measuring is no longer necessary, and you always achieve a perfect fit quickly and easily without cutting or trimming. That means you eliminate waste and save time! Each tile is fitted with a break-out masonry anchor to secure the system to the substrate.

SpeeTile10



SpeeTile10 mat

material and colour	polypropylene recycled black
length x width	120x75cm
height	12.75mm
surface area	0.9m ²
SpeeTile components in one mat	8 x 5 = 40 (15x15cm) pcs
extendibility	130mm over 4 metres
pipe	Ø10x1.3mm (WARP SpeeTube10)
C-to-C distance between pipes	75mm
installation height including mortar	15mm – 20mm total
weight mat, pipe, water, mortar	from 30kg/m ²

Group

pipe length per group	maximum 80 metres
surface area per group	maximum 5m ²
pattern	double-meander or spiral

Masonry anchor

hole size	Ø5.0mm (depending on substrate)
diameter masonry anchor	Ø7.0mm

SpeeTile component

length x width	15x15cm
extendibility	5mm per component

Final flooring

floor	SpeeTop (mortar)
wall/ceiling	plaster or cob

HEATING

Average temperature of supply water °C	Room temperature					Average floor/wall temperature °C
	24 °C	22 °C	20 °C	18 °C	15 °C	
27.5	0 W/m ²	24 W/m ²	51 W/m ²	72 W/m ²	108 W/m ²	24
30	10 W/m ²	35 W/m ²	58 W/m ²	82 W/m ²	117 W/m ²	24.8
32.5	24 W/m ²	48 W/m ²	73 W/m ²	96 W/m ²	132 W/m ²	26
35	33 W/m ²	56 W/m ²	80 W/m ²	104 W/m ²	140 W/m ²	26.7
37.5	40 W/m ²	64 W/m ²	88 W/m ²	112 W/m ²	147 W/m ²	27.3
40	48 W/m ²	72 W/m ²	95 W/m ²	120 W/m ²	156 W/m ²	28

COOLING

Average temperature of supply water °C	Room temperature					Average floor/wall temperature °C
	22 °C	24 °C	26 °C	28 °C	30 °C	
22	–	3 W/m ²	15 W/m ²	27 W/m ²	39 W/m ²	23.5
20.75	–	6 W/m ²	18 W/m ²	30 W/m ²	42 W/m ²	23
19.5	–	12 W/m ²	24 W/m ²	36 W/m ²	48 W/m ²	22
18.25	3 W/m ²	15 W/m ²	27 W/m ²	39 W/m ²	51 W/m ²	21.5
17	6 W/m ²	18 W/m ²	30 W/m ²	42 W/m ²	54 W/m ²	21
15.75	9 W/m ²	21 W/m ²	33 W/m ²	45 W/m ²	57 W/m ²	20.5

TECHNICAL SPECIFICATIONS

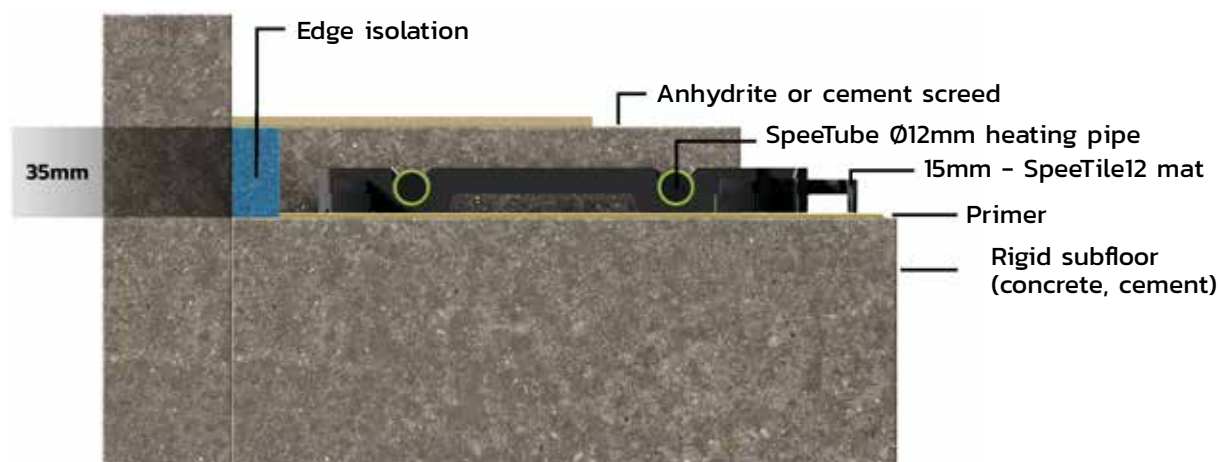
SpeeTile12

The 120x80cm mats are just 15mm thick and consist of 24 modular tiles measuring 20x20cm, which are made of recycled plastic and have an open structure. With the patented **click-break-slide system**, the tiles are extendible in length and width.



Pre-measuring is no longer necessary, and you always achieve a perfect fit quickly and easily without cutting or trimming. That means you eliminate waste and save time! Each tile is fitted with a break-out masonry anchor to secure the system to the substrate.

SpeeTile12



SpeeTile12 mat

material and colour	polypropylene recycled black
length x width	120x80cm
height	15mm
surface area	0.96m ²
SpeeTile components in one mat	6 x 4 = 24 (20x20cm) pcs
extendibility	200 mm over 4 metres
pipe	Ø12x1.5mm (WARP SpeeTube12)
C-to-C distance between pipes	100mm
installation height including mortar	from 35mm, depending on the final flooring
weight mat, pipe, water, mortar	from 75kg/m ²

Group

pipe length per group	maximum 100 metres
surface area per group	maximum 10m ²
pattern	double-meander or spiral

Masonry anchor

hole size	Ø5.0mm (depending on substrate)
diameter masonry anchor	Ø7.0mm

SpeeTile component

length x width	20x20cm
extendibility	10mm per component

Final flooring

floor	cement or anhydrite
wall/ceiling	plaster or cob

HEATING

Average temperature of supply water °C	Room temperature					Average floor/wall temperature °C
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27.5	0 W/m ²	24 W/m ²	51 W/m ²	72 W/m ²	108 W/m ²	24
30	10 W/m ²	35 W/m ²	58 W/m ²	82 W/m ²	117 W/m ²	24.8
32.5	24 W/m ²	48 W/m ²	73 W/m ²	96 W/m ²	132 W/m ²	26
35	33 W/m ²	56 W/m ²	80 W/m ²	104 W/m ²	140 W/m ²	26.7
37.5	40 W/m ²	64 W/m ²	88 W/m ²	112 W/m ²	147 W/m ²	27.3
40	48 W/m ²	72 W/m ²	95 W/m ²	120 W/m ²	156 W/m ²	28

COOLING

Average temperature of supply water °C	Room temperature					Average floor/wall temperature °C
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22	-	3 W/m ²	15 W/m ²	27 W/m ²	39 W/m ²	23.5
20.75	-	6 W/m ²	18 W/m ²	30 W/m ²	42 W/m ²	23
19.5	-	12 W/m ²	24 W/m ²	36 W/m ²	48 W/m ²	22
18.25	3 W/m ²	15 W/m ²	27 W/m ²	39 W/m ²	51 W/m ²	21.5
17	6 W/m ²	18 W/m ²	30 W/m ²	42 W/m ²	54 W/m ²	21
15.75	9 W/m ²	21 W/m ²	33 W/m ²	45 W/m ²	57 W/m ²	20.5

TECHNICAL SPECIFICATIONS

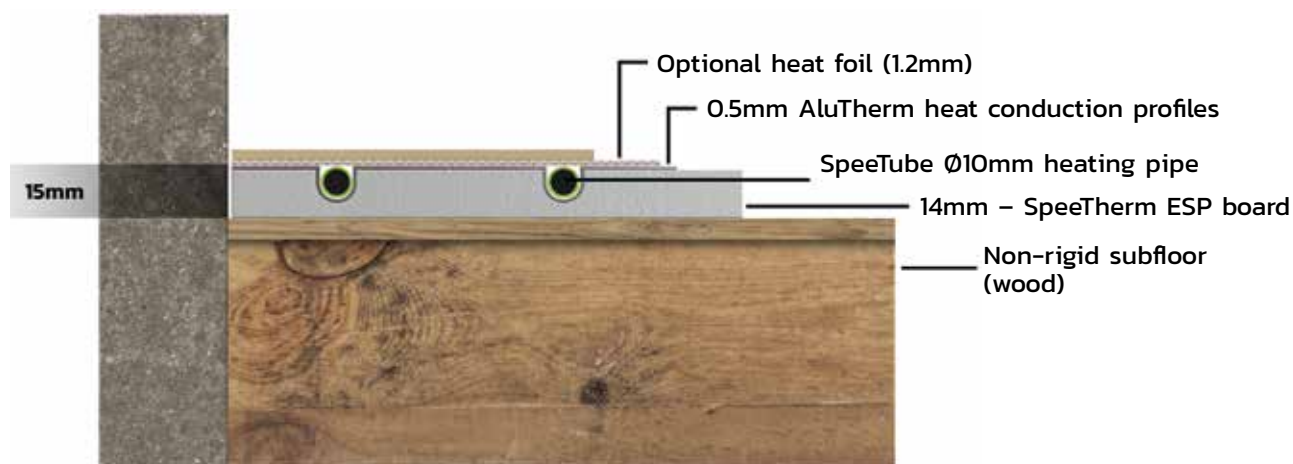
SpeeTherm15

The SpeeTherm 14mm boards consist of EPS (Expanded PolyStyrene) with a compressive strength of 200 kPa. The SpeeTherm boards are 80x60cm with a height of 14mm and are sold in packages of 11 boards. This equates to 5m² per box.



The preformed EPS boards (10cm C-to-C) have an insulation value of 0.48 Rd and are designed for use with AluTherm heat conduction profiles and SpeeTube Ø10mm heating pipe. The EPS boards are laid (floating) on a completely flat subfloor (it does not have to be level) with a 3mm gap at the walls.

SpeeTherm15



SpeeTherm15 dry construction board

material and colour	EPS (Expanded PolyStyrene) 200 grey
length x width	80x60cm
height	14mm
surface area	0.48m ²
compressive strength (brl 1306)	200 kPa
pipe	Ø10x1.3mm (WARP SpeeTube10)
C-to-C distance between pipes	100mm
thermal coefficient (λ)	0.030 W/mk
thermal resistance (Rd)	0.48 m ² K/W
installation	floating, 3mm gap from walls

Box contents**Group**

number of boards in box	11 pieces	pipe length per group	maximum 80 metres
number of m ² in box	5.28m ²	surface area per group	maximum 7m ²
box dimensions	80.5x60.5x16.2cm	laying pattern	double-meander

In combination with

dry	AluTherm profile (0.5mm thick)
pipe	Ø10x1.3mm (WARP SpeeTube10)
pipe connection at manifold via	¾" Ø10mm PushFit connectors
total system installation height	15mm
total system weight	2,8kg/m ²
(EPS, AluTherm, SpeeTube pipe and water)	

Final flooring

- Option: sound-insulating, vapour-inhibiting foam film suitable for underfloor heating (e.g. heat foil)*
- Rigid, non-resilient, floating final floors (e.g. laminate, parquet)*

* For installation of the final floor, follow the instructions from the supplier of the final floor.

HEATING

Average temperature of supply water °C	Room temperature					Average floor/wall temperature °C
	24 °C	22 °C	20 °C	18 °C	15 °C	
27.5	7 W/m ²	31 W/m ²	55 W/m ²	79 W/m ²	115 W/m ²	24.6
30	18 W/m ²	42 W/m ²	66 W/m ²	90 W/m ²	126 W/m ²	25.5
32.5	29 W/m ²	53 W/m ²	77 W/m ²	101 W/m ²	137 W/m ²	26.4
35	40 W/m ²	66 W/m ²	88 W/m ²	112 W/m ²	148 W/m ²	27.3
37.5	50 W/m ²	75 W/m ²	98 W/m ²	122 W/m ²	158 W/m ²	28.2
40	62 W/m ²	86 W/m ²	110 W/m ²	134 W/m ²	170 W/m ²	29.2

COOLING

Average temperature of supply water °C	Room temperature					Average floor/wall temperature °C
	22 °C	24 °C	26 °C	28 °C	30 °C	
22	–	6 W/m ²	12 W/m ²	30 W/m ²	42 W/m ²	23
20.75	1.5 W/m ²	14 W/m ²	26 W/m ²	38 W/m ²	50 W/m ²	21.75
19.5	9 W/m ²	21 W/m ²	33 W/m ²	45 W/m ²	57 W/m ²	20.5
18.25	17 W/m ²	29 W/m ²	41 W/m ²	53 W/m ²	65 W/m ²	19.25
17	24 W/m ²	36 W/m ²	48 W/m ²	60 W/m ²	72 W/m ²	18
15.75	32 W/m ²	44 W/m ²	56 W/m ²	68 W/m ²	80 W/m ²	16.75

TECHNICAL SPECIFICATIONS

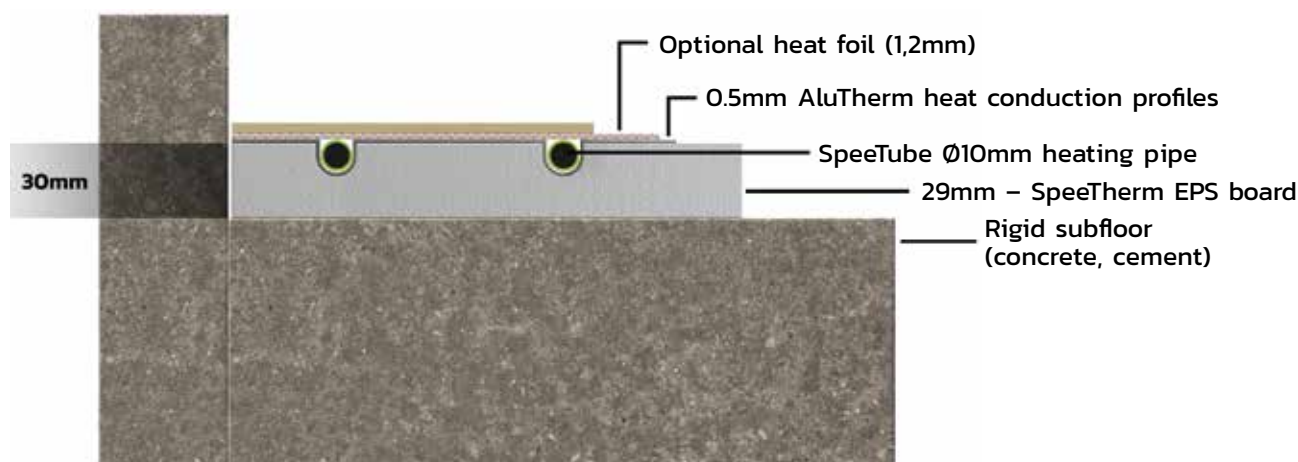
SpeeTherm30

The SpeeTherm 29mm boards consist of EPS (Expanded PolyStyrene) with a compressive strength of 200 kPa. The SpeeTherm boards are 80x60cm with a height of 29mm and are sold in packages of 11 boards. This equates to 5m² per box.



The preformed EPS boards (10cm C-to-C) have an insulation value of 1 Rd and are designed for use with AluTherm heat conduction profiles and SpeeTube Ø10mm heating pipe. The EPS boards are laid (floating) on a completely flat subfloor (it does not have to be level) with a 3mm gap at the walls.

SpeeTherm30



SpeeTherm30 dry construction board

material and colour	EPS (Expanded PolyStyrene) 200 grey
length x width	80x60cm
height	29mm
surface area	0.48m ²
compressive strength	200 kPa
pipe	Ø10x1.3mm (WARP SpeeTube10)
C-to-C distance between pipes	100mm
thermal coefficient (λ)	0.030 W/mk
thermal resistance (Rd)	1 m ² K/W
installation	floating, 3mm gap from walls

Box contents**Group**

number of boards in box	11 pieces	pipe length per group	maximum 80 metres
number of m ² in box	5.28m ²	surface area per group	maximum 7m ²
box dimensions	80.5x60.5x34cm	laying pattern	double-meander

In combination with

dry	AluTherm profile (0.5mm thick)
pipe	Ø10x1.3mm (WARP SpeeTube10)
pipe connection at manifold via	¾" Ø10mm PushFit connectors
total system installation height	30mm
total system weight	3.3kg/m ²
(EPS, AluTherm, SpeeTube pipe and water)	

Final flooring

- Option: sound-insulating, vapour-inhibiting foam film suitable for underfloor heating (e.g. heat foil)*
- Rigid, non-resilient, floating final floors (e.g. laminate, parquet)*

* For installation of the final floor, follow the instructions from the supplier of the final floor.

HEATING

Average temperature of supply water °C	Room temperature					Average floor/wall temperature °C
	24 °C	22 °C	20 °C	18 °C	15 °C	
27.5	7 W/m ²	31 W/m ²	55 W/m ²	79 W/m ²	115 W/m ²	24.6
30	18 W/m ²	42 W/m ²	66 W/m ²	90 W/m ²	126 W/m ²	25.5
32.5	29 W/m ²	53 W/m ²	77 W/m ²	101 W/m ²	137 W/m ²	26.4
35	40 W/m ²	66 W/m ²	88 W/m ²	112 W/m ²	148 W/m ²	27.3
37.5	50 W/m ²	75 W/m ²	98 W/m ²	122 W/m ²	158 W/m ²	28.2
40	62 W/m ²	86 W/m ²	110 W/m ²	134 W/m ²	170 W/m ²	29.2

COOLING

Average temperature of supply water °C	Room temperature					Average floor/wall temperature °C
	22 °C	24 °C	26 °C	28 °C	30 °C	
22	–	6 W/m ²	12 W/m ²	30 W/m ²	42 W/m ²	23
20.75	1.5 W/m ²	14 W/m ²	26 W/m ²	38 W/m ²	50 W/m ²	21.75
19.5	9 W/m ²	21 W/m ²	33 W/m ²	45 W/m ²	57 W/m ²	20.5
18.25	17 W/m ²	29 W/m ²	41 W/m ²	53 W/m ²	65 W/m ²	19.25
17	24 W/m ²	36 W/m ²	48 W/m ²	60 W/m ²	72 W/m ²	18
15.75	32 W/m ²	44 W/m ²	56 W/m ²	68 W/m ²	80 W/m ²	16.75



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