

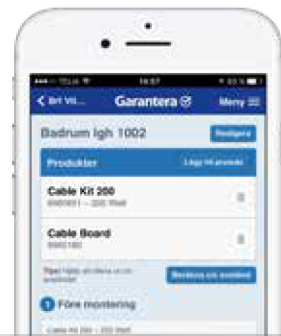


# Thermoflex Kit 200/500

# Thermoflex 45/60/120

SE | MONTERINGSANVISNING  
EN | INSTALLATION INSTRUCTIONS  
NO | LEGGEANVISNING  
FI | ASENNUSOHJE  
DE | MONTAGEANLEITUNG

Skapa garantibevis direkt i mobilen  
[garantera.ebeco.se](https://garantera.ebeco.se)



# Welcome

Thank you for choosing Ebeco. We hope that you will use and enjoy your underfloor heating system for many years to come. For the warranty to be valid, the product must be installed and handled as indicated in this manual. It is therefore important that you read the manual.

If you have any questions, please contact us at Ebeco. Call +46 31-707 75 50 or send an e-mail to support@ebeco.se. Feel free to visit ebeco.com for more information.



## Important

The underfloor heating system is a mains voltage installation and must therefore be installed in accordance with current regulations and by an authorized electrician. In order for the warranty to be valid, the warranty certificate must be filled in correctly and completely, and signed by a qualified electrician.

- The heating cable must not be cut. It must not be crossed, or laid with a spacing of less than 5 cm.
- The connection cable may be cut.
- The thermostat's sensor cable may be cut.
- The resistance and insulation values in the cable must be measured as instructed. The values should be documented in the guarantee certificate.
- A diagram or photo of the cable layout plan must be provided at the electrical cabinet.
- The *Heating cable installed* sign should be fitted in the electrical cabinet.

- Heating must be controlled by Ebeco's EB-Therm thermostats.
- The system must be connected to 230 V via a 30 mA earth-fault circuit-breaker.
- The heating cable must not be laid under fixed fittings such as kitchen units, wardrobes, internal walls, etc., since this leads to increased temperature.
- In wetrooms the heating cable must be laid underneath a sealant layer.
- The lowest recommended temperature when fixing with adhesive tape is +18°C. The adhesive properties are reduced when the temperature of the floor is lower.
- After installation, wait four weeks before switching on the heating. Then increase the heat gradually. This is to allow the filler to dry thoroughly.

## Substrate

The heating cable is laid on existing floor structures made of concrete, plasterboard or chipboard. Wooden and chipboard floors over joists spaced at more than 30 cm need to be strengthened to prevent cracks from forming and tiles from coming loose. Use Ebeco Thermo Board (see Energy Saving Tips and the product's installation instructions) or plasterboard or a layer of filler.

Where the system is installed on a concrete floor laid directly on the ground, the heating must not be completely switched off during the summer.

## Floor material

Thermoflex can be installed under floor tiles and natural stone floors. The heating cable must be laid in a minimum 5 mm thick layer of filler.

Do not cover the finished floor with thick insulating carpets, "bean bags" etc., since this may cause local overheating and damage the floor.

See current trade regulations for exact instructions regarding floor construction, filling, sealant layers, tiling, grouting, etc. Feel free to contact the supplier with specific queries.

## Specifications

Thermoflex Kit 500	Thermoflex Kit 200	Thermoflex 120	Power	Area	Nominell heat output	Max. continous heat output	Resistance*
E 89 611 00	E 89 602 30	89 605 79	150 W	1,25 m <sup>2</sup>	0,15 kW	0,15 kW	353 Ω
E 89 611 01	E 89 602 32	89 605 80	200 W	1,7 m <sup>2</sup>	0,2 kW	0,2 kW	265 Ω
E 89 611 02	E 89 602 34	89 605 82	250 W	2,1 m <sup>2</sup>	0,25 kW	0,25 kW	212 Ω
E 89 611 03	E 89 602 36	89 605 84	340 W	2,7 m <sup>2</sup>	0,34 kW	0,34 kW	156 Ω
E 89 611 04	E 89 602 38	89 605 85	410 W	3,4 m <sup>2</sup>	0,41 kW	0,41 kW	129 Ω
E 89 611 05	E 89 602 40	89 605 86	480 W	3,9 m <sup>2</sup>	0,48 kW	0,48 kW	110 Ω
E 89 611 06	E 89 602 42	89 605 88	530 W	4,4 m <sup>2</sup>	0,53 kW	0,53 kW	100 Ω
E 89 611 07	E 89 602 44	89 605 90	640 W	5,4 m <sup>2</sup>	0,64 kW	0,64 kW	83 Ω
E 89 611 08	E 89 602 46	89 605 92	780 W	6,6 m <sup>2</sup>	0,78 kW	0,78 kW	68 Ω
E 89 611 09	E 89 602 48	89 605 94	940 W	7,9 m <sup>2</sup>	0,94 kW	0,94 kW	56 Ω
E 89 611 10	E 89 602 49	89 605 95	1170 W	9,6 m <sup>2</sup>	1,17 kW	1,17 kW	45 Ω
E 89 611 11	E 89 602 50	89 605 96	1380 W	11,5 m <sup>2</sup>	1,38 kW	1,38 kW	38 Ω
E 89 611 12	E 89 602 52	89 605 98	1700 W	14,0 m <sup>2</sup>	1,7 kW	1,7 kW	31 Ω
Supplementary set without thermostat							
E 89 611 13	E 89 611 13	89 605 96	1380 W	11,5 m <sup>2</sup>	1,38 kW	1,38 kW	38 Ω
*Tolerance -5 % to +10 %							

CNM Online

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Unit 2, North Point Business Park, Selby Road, Eggborough, North Yorkshire, DN14 0JT

Thermoflex 45	Power	Area	Resistance*
E 89 602 01	60 W	1,3 m <sup>2</sup>	881 Ω
E 89 602 03	95 W	2,1 m <sup>2</sup>	556,8 Ω
E 89 602 07	130 W	2,8 m <sup>2</sup>	406,9 Ω
E 89 602 09	160 W	3,6 m <sup>2</sup>	330,6 Ω
E 89 602 11	205 W	4,4 m <sup>2</sup>	258 Ω
E 89 602 13	245 W	5,4 m <sup>2</sup>	215,9 Ω
E 89 602 15	300 W	6,6 m <sup>2</sup>	176,3 Ω
E 89 602 54	335 W	7,7 m <sup>2</sup>	157,9 Ω
E 89 602 56	400 W	9,2 m <sup>2</sup>	132,3 Ω

Thermoflex 60	Power	Area	Resistance*
E 89 610 00	80 W	1,3 m <sup>2</sup>	661,3 Ω
E 89 610 01	125 W	2,1 m <sup>2</sup>	423,2 Ω
E 89 610 02	170 W	2,8 m <sup>2</sup>	311,2 Ω
E 89 610 03	215 W	3,6 m <sup>2</sup>	246 Ω
E 89 610 04	265 W	4,4 m <sup>2</sup>	199,6 Ω
E 89 610 05	325 W	5,4 m <sup>2</sup>	162,8 Ω
E 89 610 06	395 W	6,6 m <sup>2</sup>	133,9 Ω

## Material and accessories

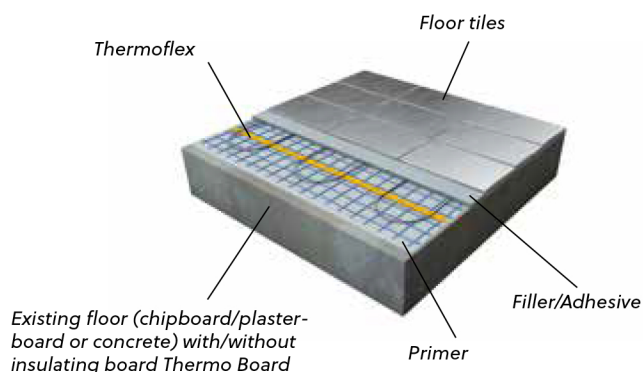
### Included in the pack

- Heating cable mat with 2.5 m connection cable
- Thermostat with sensor cable (Thermoflex Kit)
- Flexible conduit with adaptor (Thermoflex Kit)
- *Heating cable installed* sign (Thermoflex Kit).

Compare with the contents in your Kit. Check the label on the roll of cable to ensure that you have the correct cable length.

### You also need

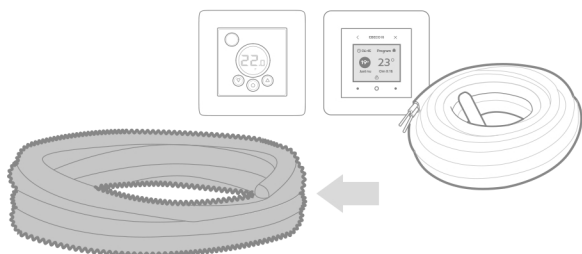
- Suitable floor filler
- Primer+ (E 89 605 50)
- Earth-fault circuit-breaker (unless already installed)



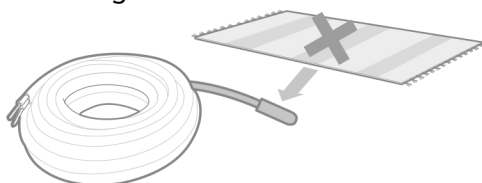
Refer also to current industry regulations for *wetrooms*.

## Positioning of sensor cable and connection cable

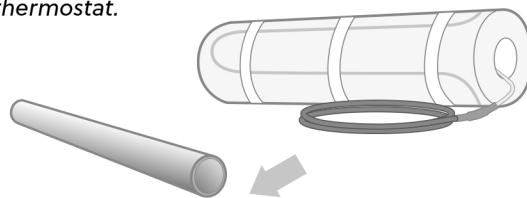
1a. The Thermoflex Kit includes a flexible conduit with one sealed end. Put the *thermostat's sensor cable* into the flexible conduit.



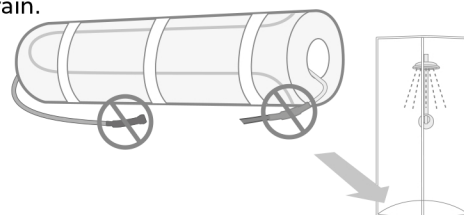
1b. The end of the sensor cable must not be covered by mats or fittings.



2a. The underfloor heating cable has a 2.5 metre connection cable. Put this into a plastic pipe designed for electrical material (not included). *With the supplementary set, both cables should be pulled up and connected in parallel in the thermostat.*

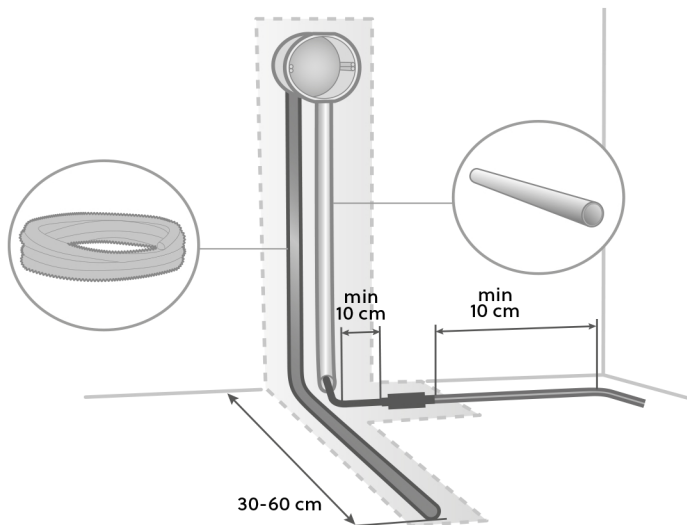


2b. The splices for the connection cable and the end terminal must not be placed in or next to any shower room or floor drain.



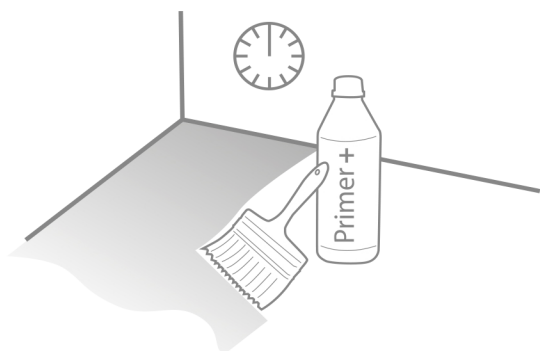
- Place the flexible conduit and pipe alongside each other in a recess in the wall.

Make a groove in the floor halfway between where two loops of cable are to be laid. Position the end of the *flexible conduit* here. The splice between the *heating cable* and *connection cable* must also be placed in a groove so that it does not protrude from the filler.

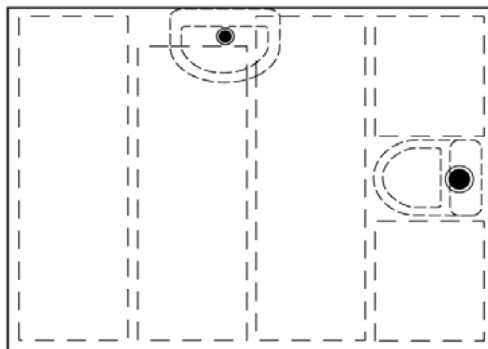


## Prepare the substrate

- Make sure that the floor is firm, does not sag and is free from dirt and old floor covering material. Prime the floor surface with Ebeco Primer + (E 89 605 50) and let it dry.

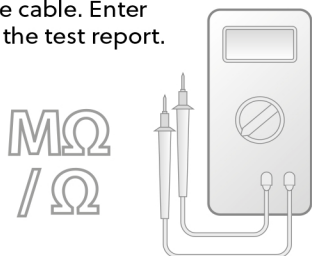


- Make a drawing on the floor of how the mat/mats are to be positioned



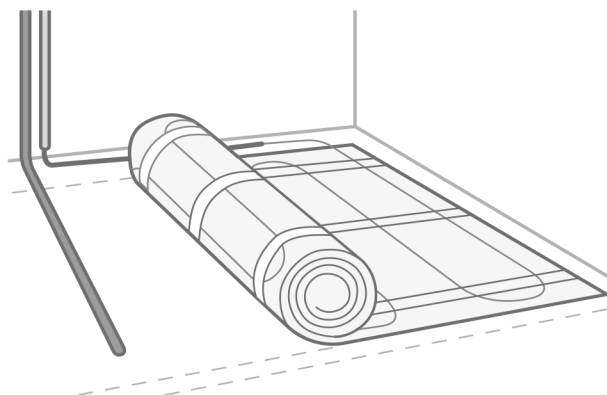
## Installation

- Measure the insulation and resistance of the cable. Enter the readings in the test report.



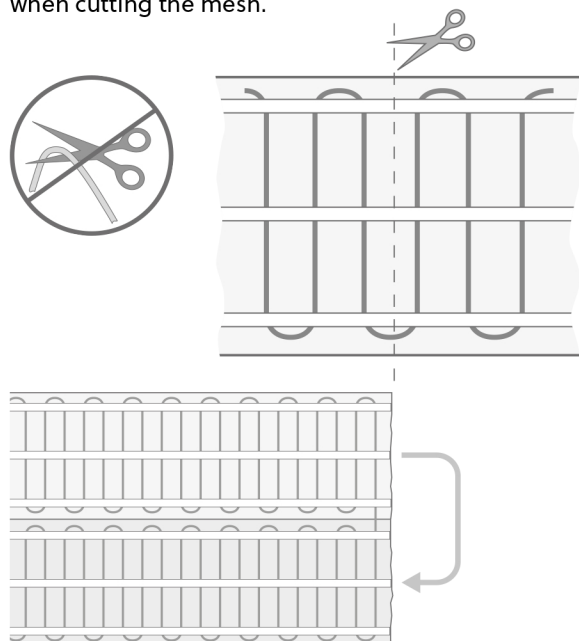
- Start fixing the Thermoflex in one corner. If the cold cable is not long enough to reach the connection point/ thermostat, you can cut the matting into as many sections as needed and install the cable along the wall to come closer. The cable splice should be inset in the floor.

- Remove the protective foil from the mat and align the matting. Roll out and bond to the floor. Press the matting against the floor.



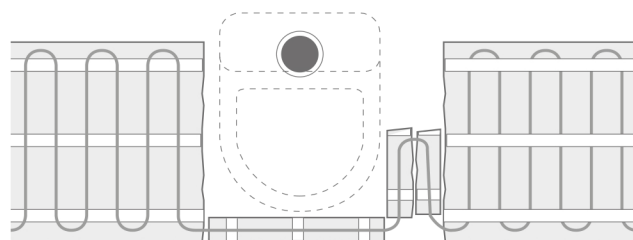


4. Roll out the matting to the opposite wall. Cut the mesh without damaging the cable. Roll the matting back again. The cables should not be closer than 5 cm to each other when cutting the mesh.

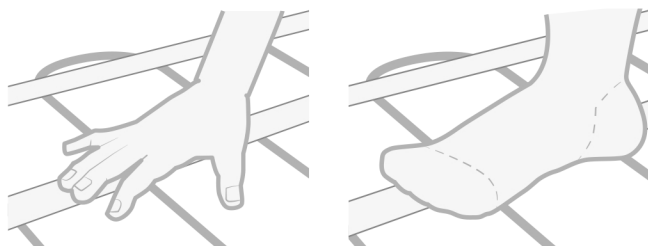


5. Do not lay the matting under fixed fittings such as toilet pans. Toilet pans can be easily fitted in place with silicone instead of screws.

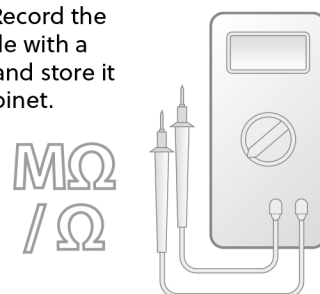
Cut and release a piece of mesh and go round toilets and the like. Cut another piece of mesh and place the cable as shown in the figure. Now, the matting can be rolled out at the right side, otherwise the installation will be more difficult.



6. Press the matting down with your hands or feet so that it sticks properly. This is especially important on rough surfaces, such as concrete. To protect the cable, wear soft-soled shoes or go barefoot. If you do not apply the filler immediately after installing, press the matting down once more just before applying the filler. To further improve the adhesive qualities the floor can be primed once more using undiluted primer, the matting will then bond very well to the floor. The mesh can also be stapled to plasterboards.



7. Take measurements and fill in the test report. Record the position of the cable with a diagram or photo and store it at the electrical cabinet.



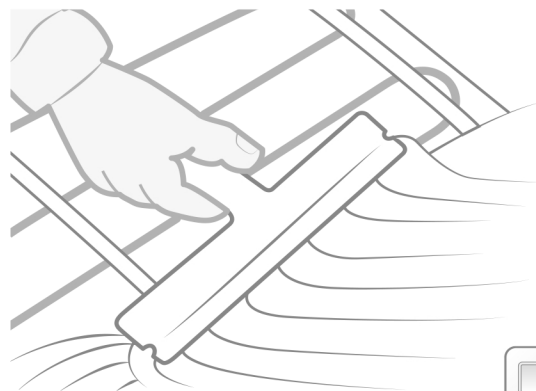
## Energy Saving Tips!

Ebeco Thermo Board is an insulation board specially designed for Thermoflex Kit 400/200 under ceramic tiles and natural stone floors. Owing to the qualities of the insulation board, the underfloor heating system

works extremely fast. Combining this insulation board with the thermostat's energy-saving program gives you a system which saves energy. It can be used in both wet and dry areas.

# Laying tiles

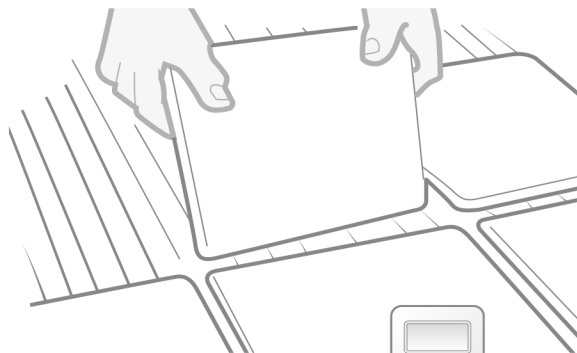
1. Fill the floor with suitable filler. Remember that the cable must be covered by a sealant layer in wetrooms.



2. Measure the cable again to check that it was not damaged when the filler was applied.



3. Lay the tiles in accordance with current industry regulations. Use flexible adhesive and grout.



4. Take measurements and complete test the report.



*Wait four weeks before switching on the heating. Then increase the heat gradually.*

## Test report

	Before laying		After fixing		After covering floor	
Product	Resistance value*	Insulation value	Resistance value*	Insulation value	Resistance value*	Insulation value
E-no: ..... Cable/Mat 1						
E-no: ..... Cable/Mat 2						

Min. insulation value 10 MΩ.

\*Tolerance -5 % to +10 %

☐ The system is documented with photos/drawings

Electrical installation carried out by:

Date: .....

.....  
according to the attached materials specification.

Signature: .....

# Terms of Warranty

## Thermoflex Kit, Thermoflex

Ebeco AB provides a 12-year warranty for material faults to Thermoflex and included accessories in Thermoflex Kit, hereafter referred to as the "Products". Should material faults occur to the Products during the period of the warranty, Ebeco AB agrees to repair or replace the Products without cost to the purchaser. Ebeco AB also undertakes to restore the floor to its original condition after performed repair or replacement. To be able to correct the fault, the purchaser must have saved or have access to 1 m² of the original flooring material.

Ebeco provides a 5 years warranty for material faults for the accompanying thermostat.

The warranty only applies under the condition that installation of the Products is performed by an authorised electrician in accordance with applicable regulations and the installation instructions issued by Ebeco. This warranty certificate including the test documentation below must be completed in full, and along with material specifications or an invoice, signed by the electrician who performed the installation. Furthermore, there must be photos/drawings that show all Products in their entirety after installation but before covering. A detailed drawing showing the terminations and joints of the cables/mats/foils, as well as the exact location of any connectors, must be prepared. Also document the installation with photos. Mark the drawing with the respective E-number from the test report. This sheet or a copy of it must be posted at the main junction box.

The warranty only applies under the condition that the product has been installed with Ebeco's control system. The warranty does not apply for installations performed by non-authorised electricians or if a non-authorised electrician has made changes or repairs. Furthermore, the warranty does not apply to faults that have occurred as a result of use of improper materials and floor constructions, or as a result of faulty installation. Damage caused by

vandalism, fire, lightning or water, or damage caused by carelessness, abnormal use or as a result of accidents, is not covered either.

In cases in which a material fault is covered by the warranty, Ebeco must be notified of this before measures are taken.

In cases in which a claim will be submitted under the warranty, this warranty certificate with the associated invoice for installation, material specifications and completed and signed test documentation must be presented.

### Extended warranty period upon registration

If the installation is registered with the form on Ebeco's website the warranty period for the underfloor heating system is extended to 25 years. For thermostats the original warranty continues to apply. All mandatory fields on the online form must be correctly filled in and the documentation saved. Registration must occur no later than 3 months from the installation date below. Conditions and terms apply per the above. Go to [ebeco.com/guarantee](http://ebeco.com/guarantee) or scan the code below for a direct link.

EBECO AB  
Martin Larsson, CEO

## Products

Product:

- ☐ Thermoflex Kit 200
- ☐ Thermoflex Kit 500

- ☐ Thermoflex 45\*
- ☐ Thermoflex 60\*
- ☐ Thermoflex 120\*

\*in combination with:

- ☐ EB-Therm 55
- ☐ EB-Therm 205
- ☐ EB-Therm 500
- ☐ EB-Therm 800

Installed in the following spaces:

- ☐ Hall
- ☐ Kitchen
- ☐ Wetroom
- ☐ Living room
- ☐ Bedroom
- ☐ Conservatory

☐ Other: .....

E-number:	Length/Size:	OutputVoltage:
.....	.....	.....
.....	.....	.....



Scan the code with your smartphone to go directly to the form and register for a 25-year warranty.