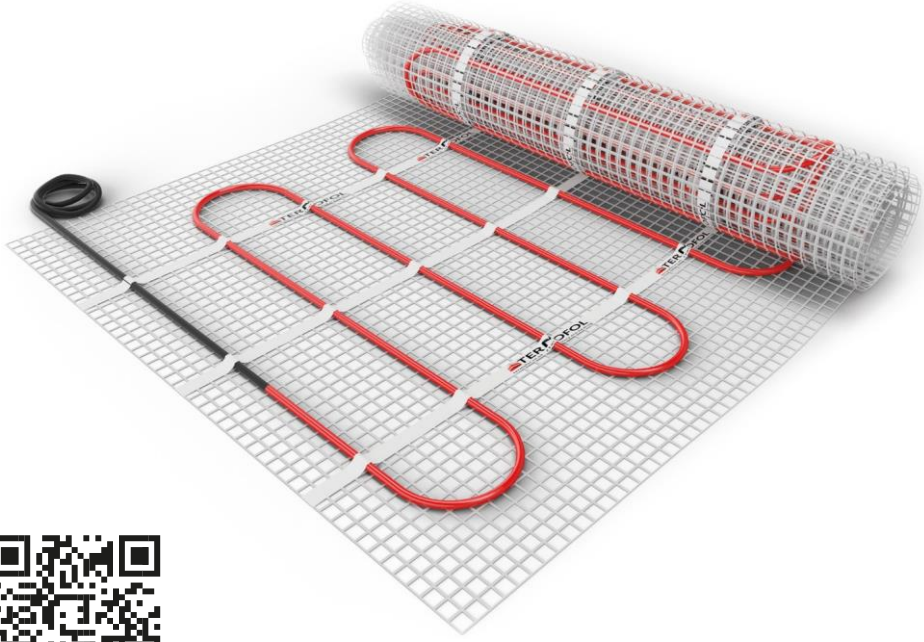
TERMOFOL

KÜTTEMATT

PAIGALDUSJUHEND



Paigaldusjuhend

Installation manual

Oluline: Enne paigaldamise alustamist lugege juhiseid!
Note: Please read the instructions before starting the installation!

Lugupeetud proua või härra,

Täname teid TERMOFOLI küttemati ostmise eest. Oleme veendunud, et jääte meie tootega rahule. Pakume igal ajal oma abi ja oleme valmis andma teavet nii toote kokkupaneku kui ka kasutamise ajal. Külastage ka meie veebisaiti www.redwell.ee

TERMOFOL küttemati tehnilised andmed

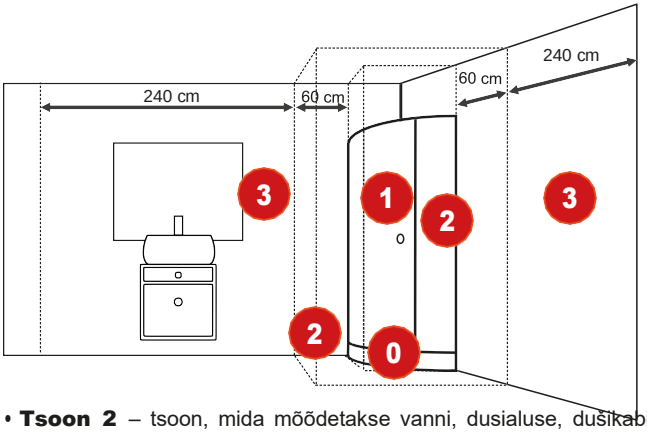
- Mati võimsus: 150W/m^2
- Toitepinge: 230V +/– 15% 50/60 Hz
- Laius: 50 cm
- Pikkus: = pind m^2 x2
- Mati toide: ühepoolne
- Rahvusvaheline kaitseaste: IPX7
- Küttekaabli paksus: 3.6 mm^2
- Kandev aluspind: klaaskiudvõrk – isekleepuv
- **Garantii 25aastat**

Piirangud ja üldised märkused

- Paigaldamisel kandke pehme kummitallaga kingi.
- Küttemati paigaldamisel ja põranda viimistlemisel tuleb olla eriti ettevaatlik.
- **MITTE MINGIL JUHUL EI TOHI KÜTTEJUHET LÜHENDADA.**
- Küttematiga tuleb ühendada termostaat.
- Küttejuhtmed ei tohi kattuda ja peavad asetsema korrektselt – hoidke juhtmete vahel 9cm vahemaad.
- Ärge kasutage mati paigaldamisel teravaid tööriistu.
- Küttemati ühendamine elektrivõrku ilma termostaadita on keelatud.
- Ruumi aluspõrand tuleb puhastada, tasandada ja kruntida.
- Küttemati paigaldus on lubatud temperatuuril üle 5 °C.
- Peate läbi viima kolm küttejuhi ja isolatsioonitakistuse mõõtmist.
- Koostage juhtmestiku eskiis ja sisestage mõõtmiste andmed (tolerants +/- 10%).
- Kui on vaja pikendada küttemati toitejuhtmeid, siis tuleb teha ühendus vastavalt elektrinõuetele.
- Elektrikütte paigaldamisel tuleb järgida ohutusnõudeid kõrgendatud õhuniiskusega ruumides (pesuruum, WC, vannituba) ja 1. tsooni löögivastane kaitse.
- Paigaldage küttematt vertikaalseintest vähemalt 10 cm kaugusele.
- Koostage küttemati paigutuse kavand, arvestades sanitaartehnika liitmike (vann, dušialus, WC-pott, bidee jne).
- Kasutage plastifikaatoriga elastset liimi elektripõrandakütte keraamiliste plaatide paigaldamiseks.
- Veenduge, et juhtmestik oleks voolu all kaitsed (A). Kui ei, käivitage praegune kaitse.
- Ärge paigaldage küttematte fikseeritud esemete alla (mööbel, pesumasinad, külmikud jne.)
- **ELEKTIÜHENDUSE PEAB TEGEMA ELEKTRIK, KES OMAB KEHTIVAT KVALIFIKATSIOONI SERTIFIKAATI.**

Kaitsetsoonid ja ohutusreeglid

Ehitusseadus määrab selgelt pesuruumides ja vannitubades kehtivad ohutusalad. Eelnimetatud ruumides elektriseadmete kokkupanekuga seotud reeglite järgminine on tingimata vajalik!



Ohutustsoonid:

• **Tsoon 0** – mõõdetud tsoon piki välist kontuuri aluspõrand kohas, kus asuvad vann, dušialus, duššikabiin – **KÜTTEMATI JA TERMOSTAADI PAIGALDUS ON KEELATUD.**

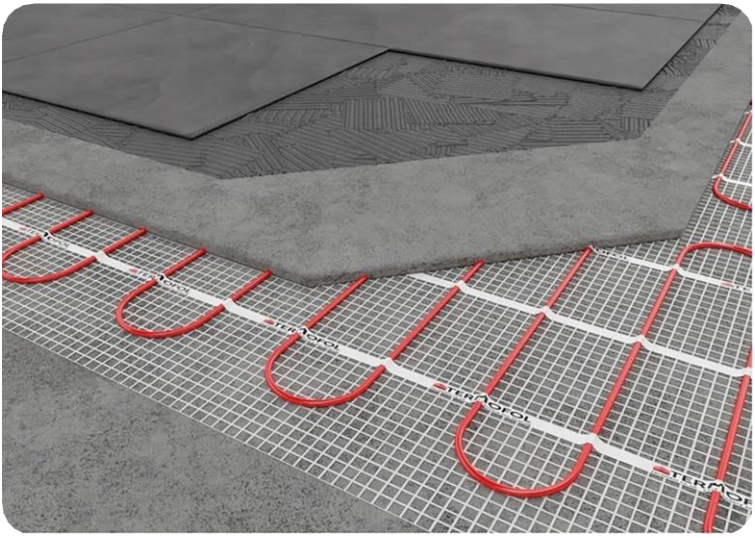
• **Tsoon 1** – mõõdetud tsoon piki vanni välist kontuuri, dušialuse, dušikabiini, avatud dušinurga aluspõrnad alates 2,25 m kõrgusele **– KÜTTEMATI JA TERMOSTAADI PAIGALDUS ON KEELATUD.**

• **Tsoon 2** – tsoon, mida mõõdetakse vanni, dusialuse, dušikabiini, avatud dusinurgast kuni 60 cm ülalmainitud asjadest kuni 225 cm kõrguseni – ON LUBATUD PAIGALDADA KÜTTEMATT, KUID MITTE TERMOSTAATI.

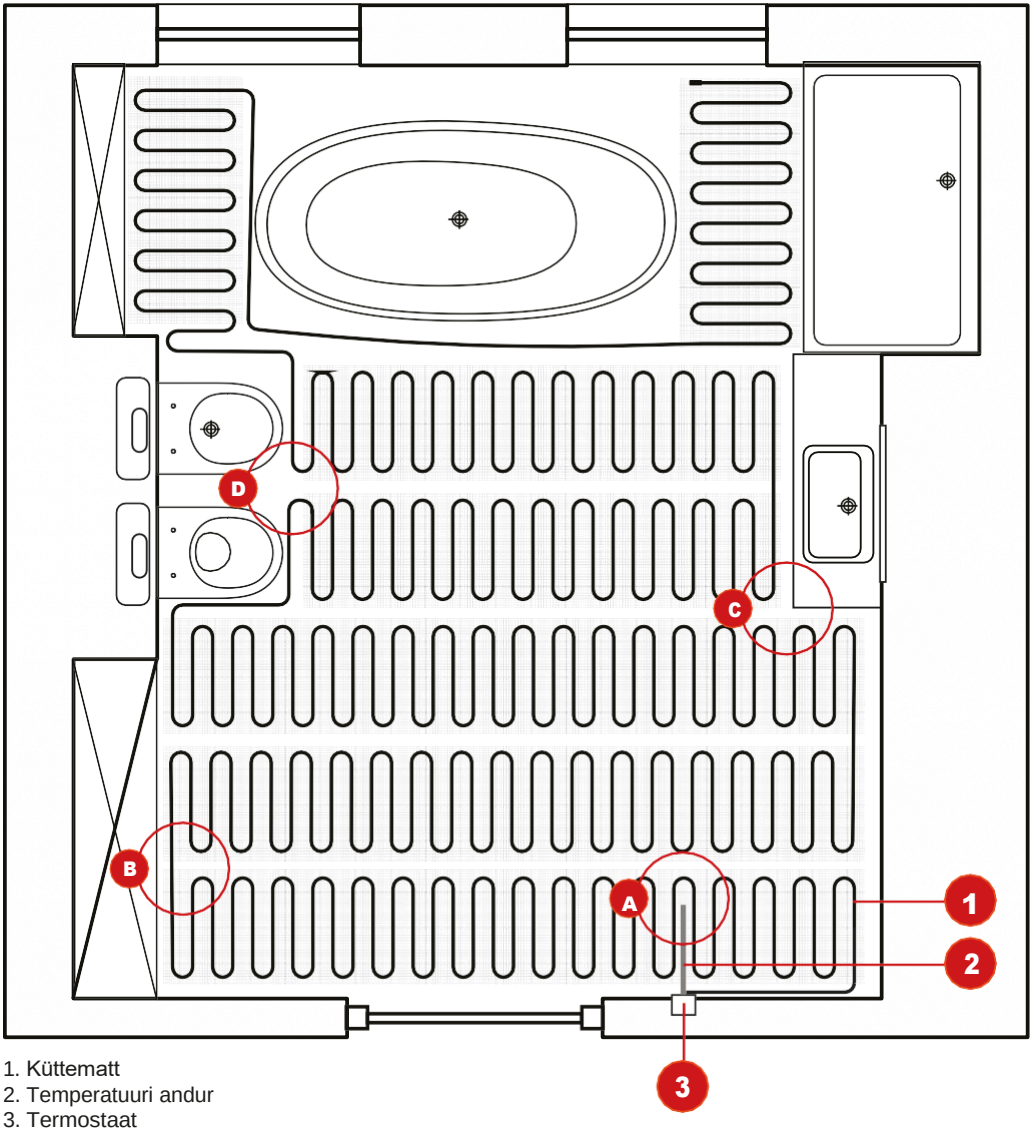
• **Tsoon 3** – tsoon, mille kaugus vanni välikontuurist on pikem kui 60 cm, dušialus, dušikabiin, avatud dušinurk kuni ruumi piiramatu kõrguseni. LUBATUD ON PAIGALDADA NII KÜTTEMATT KUI TERMOSTAAT

HOIATUS:

ÜLALMAINITUD REEGLITE TÄITMATA JÄTMISEL SAAB KASUTAJA ELEKTRILÖÖGI, MIS VÕIB PÕHJUSTADA PÜSIVAD VIGASTUSED VÕI SURMA. VANNITUPPA PAIGALDATUD TERMOSTAADIL PEAB OLEMA RAHVUSVAHELINE KAITSEKLASSIFIKATSIOON IP21.



Vannitoa küttesüsteemi näidisprojekt



1. Küttematt
2. Temperatuuri andur
3. Termostaat

Reeglid, mida tuleb paigaldamisel järgida

A – Põranda temperatuuriandur on paigaldatud kaitsetoru soonde paralleelselt küttejuhtmega. Temperatuurianduri ots asub pooles küttemati laiusest, mis tagab õige temperatuurinäidu
B – Küttemati korrektne paigutus, vajadusel suunamuutus alusvõrgu täpse väljalõikamise abil.
C – Õiged kaugused kinnitatud mööblist ja kodumasinatest.
D – Õiged vahemaad sanitaararmatuurist.
Ülaltoodud näite järgimine aitab teil küttemati õigesti paigaldada ja kaitseb teid paigaldamisel tehtavate levinumate vigade eest.

Termostaadi paigaldus

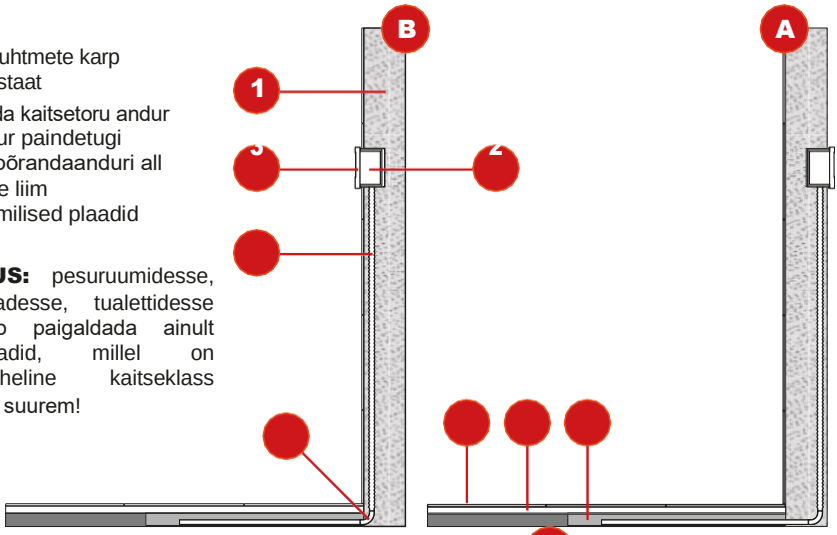
Eristame kahte tüüpi termostaadi paigaldust pesuruumi.

A – Termostaadi paigaldus väljaspool pesuruumi. Temperatuurianduri kaitsetoru on paigaldatud välisseinale allapoole ja seejärel on see viidud põrandakatte sisse tehtud soonde, küttemati alla.

Kui termostaadil on rahvusvaheline kaitsetase IP20, tuleb see paigaldada vastavalt paigaldustüübile A. **B** – termostaadi paigaldamine pesuruumi. Pesuruumi siseseinale on paigaldatud temperatuurianduri kaitsetoru ja andur on paigaldatud põrandakattesse tehtud soonde, küttemati alla. Kui termostaadil on rahvusvaheline kaitseklass IP21 võib termostaadi paigaldada ruumi sisse vastavalt paigaldustüübile B.

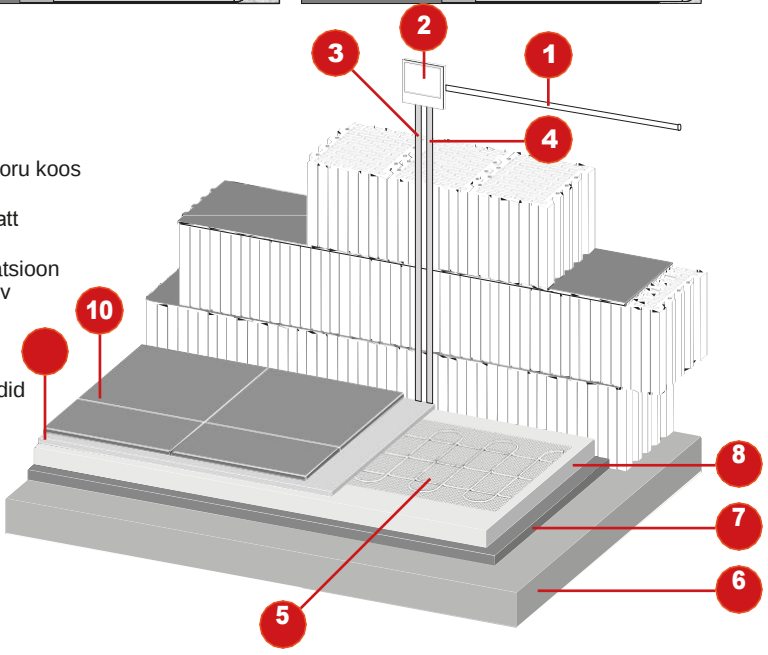
1. Sein
2. Elektrijuhtmete karp
3. Termostaat
4. Põranda kaitsetoru andur
5. Juhttour paindetugi
6. Soon põrandaanduri all
7. Elastne liim
8. Keraamilised plaadid

HOIATUS: pesuruumidesse, vannitubadesse, tualettidesse jne võib paigaldada ainult termostaadid, millel on rahvusvaheline kaitseklass **IP21** või suurem!

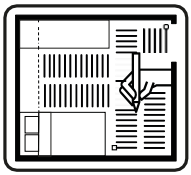


Kihtide ristlõige

1. Toiteliin 230V
2. Termostaat
3. Põrandaanduri toru
4. Kaitsev gofreeritud toru koos toitejuhtmega
5. TERMOFOL küttematt
6. Lagi
7. Põranda soojusisolatsioon
8. Põranda isetasanduv tasanduskiht
9. Elastne liim põrandakütte jaoks
10. Keraamilised plaadid

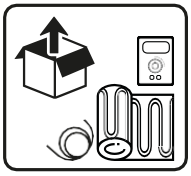


Elektrilise põrandakütte paigaldus

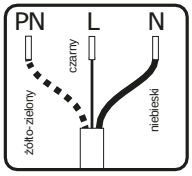


1. Projekt
Tegevus, mis on vajalik garantii kehtimiseks ja säilimiseks ning samal ajal dokument, mis lihtsustab süsteemi planeerimist.

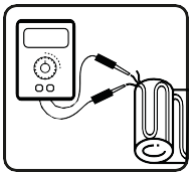
Märkige koht, kus asuvad termostaat, temperatuuri andur, toitejuhtmed ja koostage küttemattide paigutuse plaan arvestades turvatsoone.



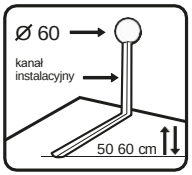
2. Toote kontrollimine
Pakkige tooted lahti ja valmistage need ette kokkupaneku jaoks. Kontrollige, kas teil on olemas vajalikud tööriistad.



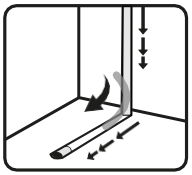
Ühepoolse elektritoitega küttematt koosneb küttejuhtmest: **PN** – maandus **N** – neutraal **L** – faas



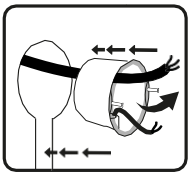
Tehke esimene takistuse ja islotasiooni mõõtmine. Märkige tulemused garantiikaardile.



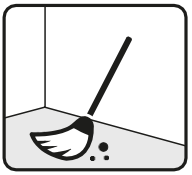
3. Ettevalmistused paigalduseks Tehke auk elekrijuhtmete karbi jaoks ja seejärel paigalduskanal põrandaanduri paigaldus kohani põrandakattes. Kanal peab olema kahekordse laiusega seina kaitsva gofreeritud toru ja selles oleva põrandaanduri toru paigaldamiseks.



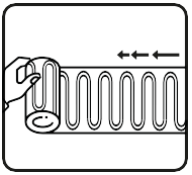
Paigaldage põrandaandurit kaitsev toru, asetage põrandaandur sellesse, nii et anduri ots jõuaks toru otsa.. Sisestage juhtiva toru painutustugi ja kinnitage.



Sisestage majapaigaldise toitekaablid, põranda-anduri kaablid ja seejärel sisestage kast tehtud auku. Olge ettevaatlik, et te juhtmeid ei vigastaks.

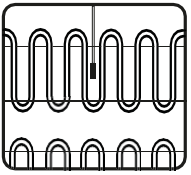


Puhastageruum mustusest, siluge olemasolevad eba-tasasused ja seejärel kruntige põrand kruntvärviga.



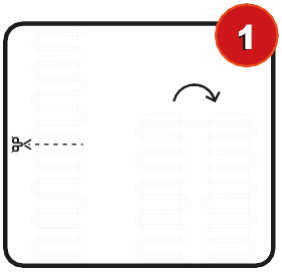
4. Mati paigaldamine
Rullige matt lahti, oodake umbes tund.Paigaldusvõrk vajab sirgendamist.

Alusta küttemati laiali laotamist kasutades eelnevalt koostatud projekti.

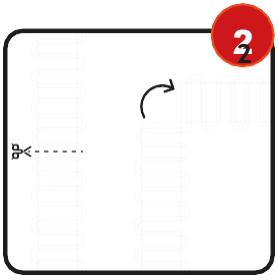


Põranda temperatuurianduri paigalduskohas laota matt laiali nii, et andur oleks kahe küttekaabli vahel.

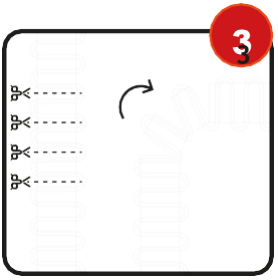
Anduri kaugus seinast peab olema 40–60 cm. Ärge unustage, et küttemati ja seinte vaheline kaugus peab olema 10 cm. Kui on vaja küttematti mähkida, siis leiate altpoolt kolm õiget paigutusviisi.



Paralleelne kurv



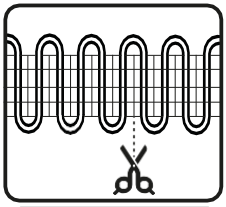
Täisnurkne nurk



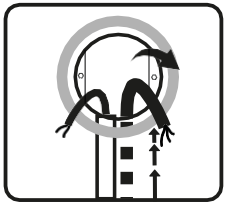
Lai kaarkõver

TÄHTIS!

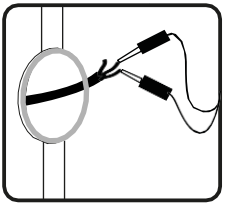
ÄRGE LÜHISTAGE KÜTTE-KAABLIT!



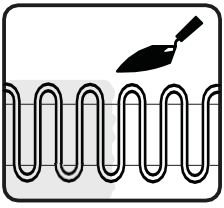
Küttemati moodustamine seisneb mati all oleva võrgu lõikamises küttekaablit lõikamata.



Pärast mati plaanijärgset lahti voltimist sisestage toitejuhe torusse ja viige see kasti ning lõigake korralikult läbi.



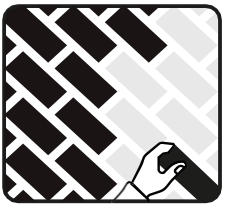
Pärast juhtmete väljaviimist tehke teine küttemati takistuse mõõtmine. Sisestage tulemus garantiikaardile.



5. Mati tihendamine

Laotage matt põrandale, katke see ühtlase kihi liimmördiga, et katta küttekaablid põhjalikult.

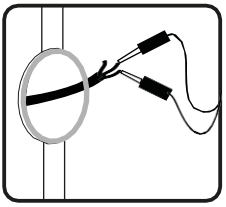
Laske eelliimitud küttematil 24 tundi kuivada. **OLULINE:** Kasutage ainult elastset põrandakütte liimi. Kandke see peale plastikust kellu abil. ÄRGE KASUTAGE METALLIST TÖÖRIISTU!



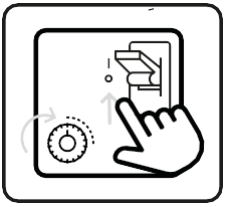
6. Põranda viimistlus

Paigaldage keraamilised plaadid, asetades need hoolikalt 5-8 mm paksusele liimikihile.

OLULINE! Ärge puhastage liitekohti teravate tööriistadega, et mitte kahjustada küttekaableid. **OLULINE!** Ärge lõigake, murdke ega purustage plaate otse põrandal, kui küttematt on liimitud



Pärast põranda valmimist ja liimi tahkumist tehke küttemati takistuse kolmas mõõtmine. Sisestage tulemus garantiikaardile.



7. Termostaadi ühendamine

Ühendage termostaat vastavalt termostaadi paigaldusjuhendis olevale skeemile.

OLULINE! Küttemati ja termostaadi ühendamist võib teostada ainult kehtiva kvalifikatsiooniga elektrik!

OLULINE! Paigaldus peab olema kaitstud rikkevoolukaitsega!

Elektrilise põrandakütte paigaldus

1. Esimene käivitamine tuleb teha 25 päeva pärast küttekihi valmimist.
2. Esimene käivitamine võtab aega 5 päeva. Esimesel päeval seadke temperatuur 19 °C. Seejärel tõstke temperatuuri iga päev 1 °C võrra, kuni jõuate 24 °C.
3. 5 päeva pärast on küttesüsteem kasutusvalmis.

Paigaldaja ja kasutaja kohustused

1. Järgige käesolevas paigaldusjuhendis ja soovitustes sisalduvaid sätteid.
2. Küttemati paigaldust teostav paigaldaja on kohustatud andma kasutajale paigaldusjuhendi koos täidetud ja allkirjastatud garantiikaardiga. Paigaldaja on kohustatud sisestama autoriseerimisnumbri ja koostama küttemattide paigutusplaani.
3. Küttemati paigalduskohas on keelatud kruvida, lõigata, puurida ja teha muid ehitustöid.
4. Põrandakeraamika vahetamisel võivad küttematid kahjustuda. Küttemattide kahjustuste eest vastutab ehitusfirma.
5. Pidage meeles, et ärge asetage küttepinnale fikseeritud mööblit. Mööbli kokkupanemisel kasutada jalgu kõrgusega min. 3 cm.
6. Ärge katke põrandat vaipadega.
7. Kasutaja on kohustatud säilitama montaažidokumentatsiooni ja ostutõendit.
8. Ärge eemaldage TERMOFOL küttemattidelt silte.

OLULINE:

Ülalkirjeldatud ja loetletud soovituste järgimine küttemati paigaldamisega seotud töödel on vajalik positiivse tulemuse saamiseks ja võimalike pretensioonide lahendamiseks garantiiajal. TERMOFOL.

Põrandakütte paigaldamise juhend keraamiliste plaatide alla

www.termofol.pl
info@redwell.eel
+372 5326 8795

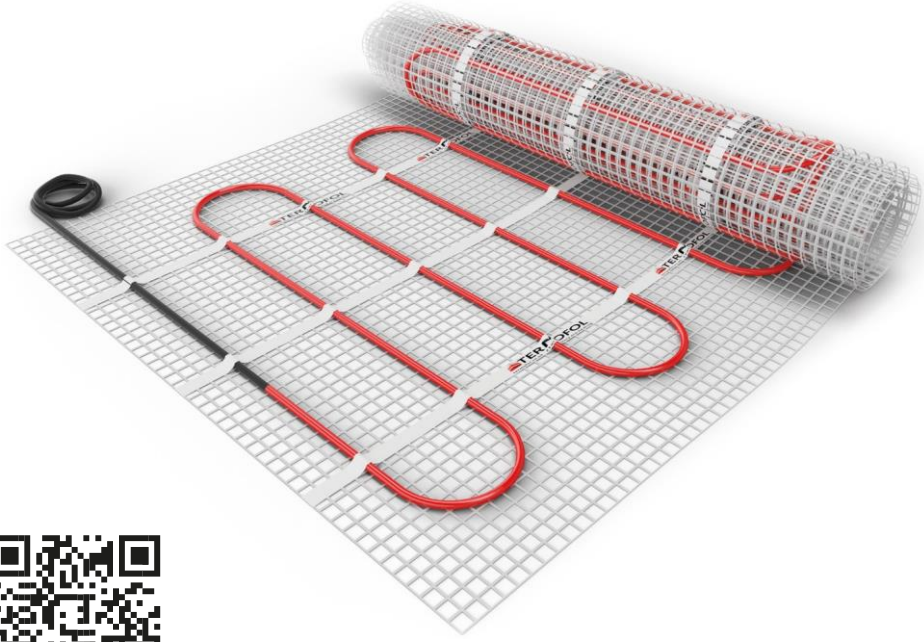
TERMOFOL

Mudel	Kütteala [m²]	Mati mõõdud	Võimsus [m²]	Mati võimsus	Amp	Oomid	Pinge
TF-HM-150-05	0,5	0,5 x 1	150	75	0.35	601,2	230V
TF-HM-150-10	1	0,5 x 2	150	150	0.7	352,7	230V
TF-HM-150-15	1,5	0,5 x 3	150	225	1.0	235,1	230V
TF-HM-150-20	2	0,5 x 4	150	300	1.3	176,3	230V
TF-HM-150-25	2,5	0,5 x 5	150	375	1.6	141,1	230V
TF-HM-150-30	3	0,5 x 6	150	450	2.0	117,6	230V
TF-HM-150-35	3,5	0,5 x 7	150	525	2.3	100,8	230V
TF-HM-150-40	4	0,5 x 8	150	600	2.6	88,2	230V
TF-HM-150-45	4,5	0,5 x 9	150	675	2.9	78,4	230V
TF-HM-150-50	5	0,5 x 10	150	750	3.3	70,5	230V
TF-HM-150-60	6	0,5 x 12	150	900	3.9	58,8	230V
TF-HM-150-70	7	0,5 x 14	150	1050	4.6	50,4	230V
TF-HM-150-80	8	0,5 x 16	150	1200	5.2	44,1	230V
TF-HM-150-90	9	0,5 x 18	150	1350	5.9	39,2	230V
TF-HM-150-100	10	0,5 x 20	150	1500	6.5	35,3	230V
TF-HM-150-120	12	0,5 x 24	150	1800	7.8	29,4	230V
TF-HM-150-150	15	0,5 x 30	150	2250	9.8	23,5	230V

TERMOFOL

HEATING MAT

ASSEMBLY MANUAL



Installation manual

Note: Please read the instructions before starting the installation!

Dear Madam or Sir,

Thank You for purchasing a TERMOFOL heating mat. We are convinced that you will be satisfied with our product. At any time, we offer our assistance and we are willing to provide information, both during an assembly, and operation of our products. Please, feel invited to visit our web site at www.termofol.pl.

Technical data of TERMOFOL heating mats

- Rated power of mat: 150W/m^2
- Power voltage: 230V +/– 15% 50/60Hz
- Width: 50 cm
- Length: surface in m^2 x2
- Mat power supply: One-sided
- International Protection Rating: IPX7
- Thickness of heating conductor: 3.6 mm^2
- Bearing base floor: Glass fibre mesh – self-adhesive
- **25-year warranty**

Restrictions and general notes

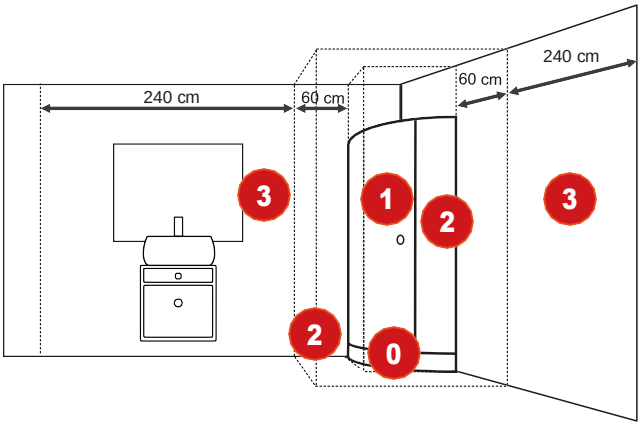
- You should wear shoes with a soft rubber sole while performing the assembly operations.
- Special caution should be exercised while assembling a heating mat and finishing a floor.
- **IN NO CIRCUMSTANCES YOU ARE ALLOWED TO SHORTEN THE HEATING CONDUCTORS.**
- A heating mat must be connected to a thermostat.
- The heating conductors cannot overlap and in the case of an assembly without any mesh – keep a distance of 9cm between the conductors.
- Do not use any sharp tools while assembling a mat.
- It is forbidden to connect a heating mat to wiring without any thermostat on a permanent basis.
- You should clean, level and prime a room base floor.
- An assembly of a heating mat is permitted at the temperature of above 5 °C.
- You should execute three measurements of heating conductor and insulation resistance.
- Draw up w wiring sketch and complete data from the measurements (tolerance of +/- 10%)
- If it is necessary to extend the power supply conductors of a heating mat, you should provide a connection according to the electrical requirements.
- You should observe the safety provisions in respect of an assembly of an electric heating in the rooms with increased humidity (washroom, toilet, bath room) and in the zone 1 of anti-shock protection.
- Install a heating mat minimum 10 cm from the vertical walls.

Draw up a design how to arrange a heating mat considering the fittings of sanitary whiteware (bathtub, shower tray, toilet bowl, bidet, etc.). Use an elastic adhesive with a plasticiser for the floor electric heating for an assembly of the ceramic tiles. Make sure if your wiring has current protections (A). If not, execute a current protection. Do not install heating mats under the fixed joinery (furniture, washing machines, refrigerators, etc.)

AN ELECTRICAL WIRING CONNECTION MUST BE MADE ONLY BY AN ELECTRICIAN WHO HOLDS A VALID SEP (ASSOCIATION OF POLISH ELECTRICAL ENGINEERS) QUALIFICATION CERTIFICATE!

Protection zones and safety rules

The Construction Law clearly specifies the safety zones applicable in the washrooms and bath rooms. It is absolutely required to observe the rules related to an assembly of the electric devices in the above-mentioned rooms!



Safety zones:

• **Zone 0** – A zone measured along an external outline of the base floor in a site where a bath tub, a shower tray, a shower stall, an open stall is assembled--IT IS FORBIDDEN TO ASSEMBLY THE HEATING MATS AND A THERMOSTAT.

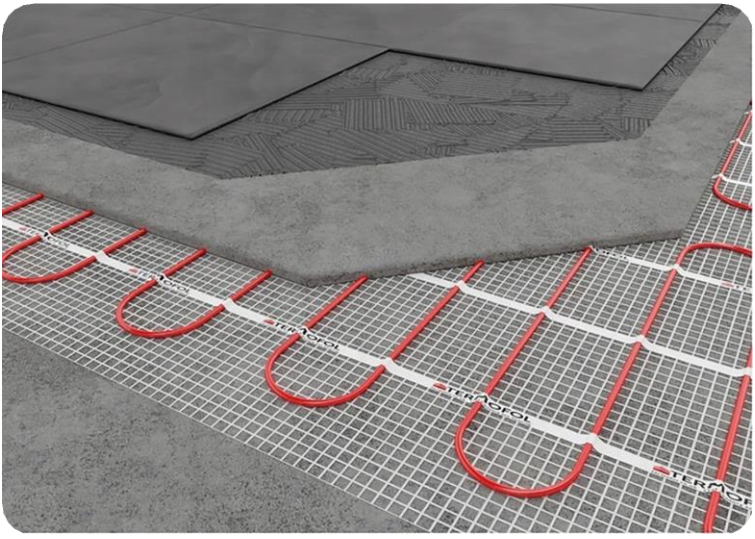
• **Zone 1** – A zone measured along an external outline of a bath tub, a shower tray, a shower stall, an open stall from a base floor to a height of 2.25 m – IT IS FORBIDDEN TO ASSEMBLY THE HEATING MATS AND A THERMOSTAT.

• **Zone 2** – A zone measured from an external outline of a bath tub, a shower tray, a shower stall, an open stall up to 60 cm from the above- mentioned items to a height of 225 cm – IT IS ALLOWED TO ASSEMBLY THE HEATING MATS, BUT NOT A THERMOSTAT.

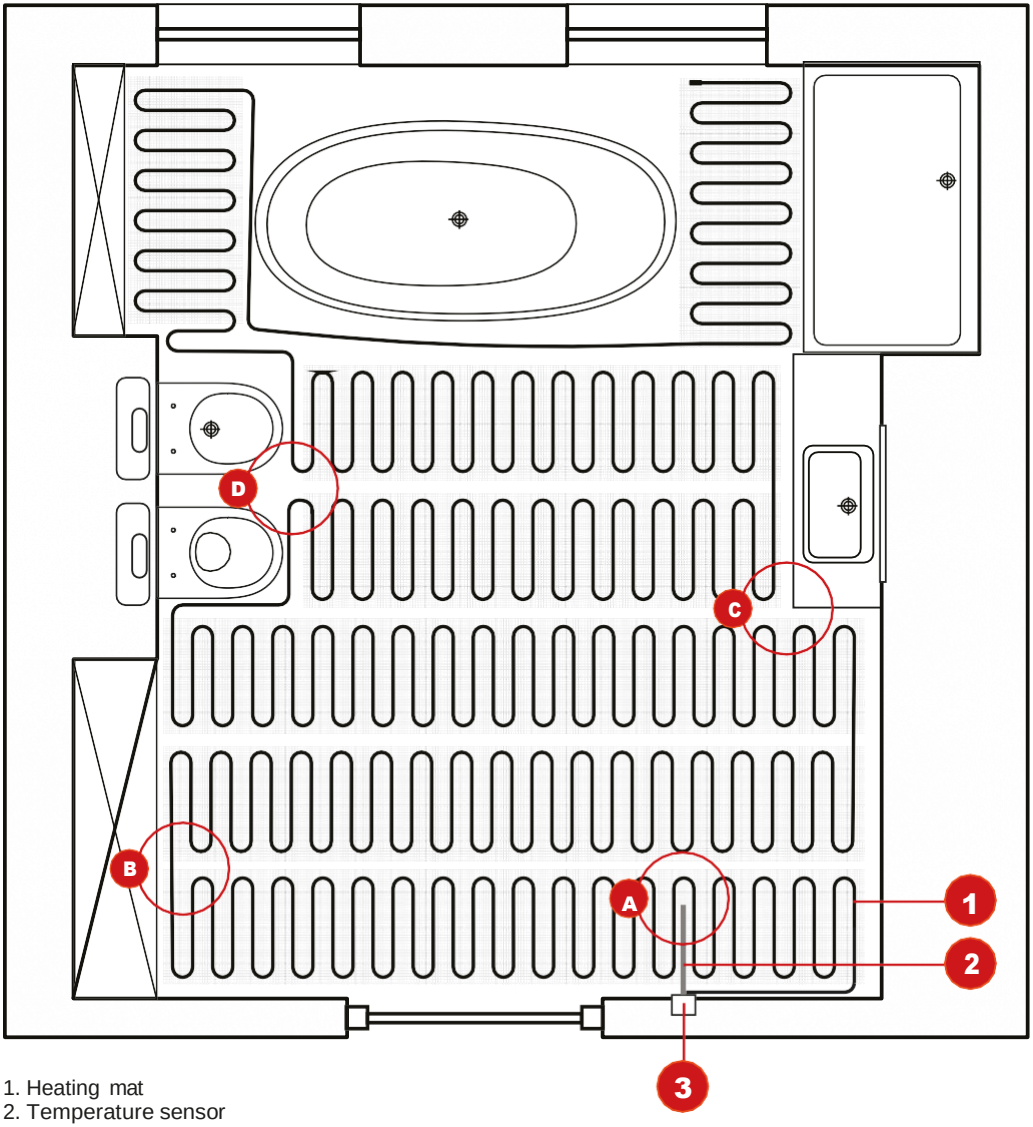
• **Zone 3** – A zone measured in a distance longer than 60 cm an external outline of a bath tub, a shower tray, a shower stall, an open stall up to an unlimited height of the room. IT IS ALLOWED TO ASSEMBLY THE HEATING MATS AND A THERMOSTAT.

WARNING!

ANY FAILURE TO ADHERE TO THE ABOVE-MENTIONED RULES EXPOSES THE USERS TO ELECTRIC SHOCK WHAT MAY RESULT IN A PERMANENT PERSONAL INJURY OR A DEATH. THERMOSTAT INSTALLED IN THE WASHROOM MUST FEATURE AN INTERNATIONAL PROTECTION RATING OF IP21!



Exemplary design of an assembly of the heating amt in the washroom



1. Heating mat
2. Temperature sensor
3. Thermostat

The rules, which are to be observed during an assembly

A – A floor temperature sensor has been assembled in the groove of a protective pipe, parallelly to the heating conductors. An end of the temperature sensor is in a half of the heating mat width what guarantees a correct temperature read-out.
B – An exemplary change of a direction of a heating mat arrangement by cutting out a base mesh.
C – The correct distances from a fixed joinery have been remained.
D – The correct distances from the sanitary fittings have been remained.

Thermostat installation

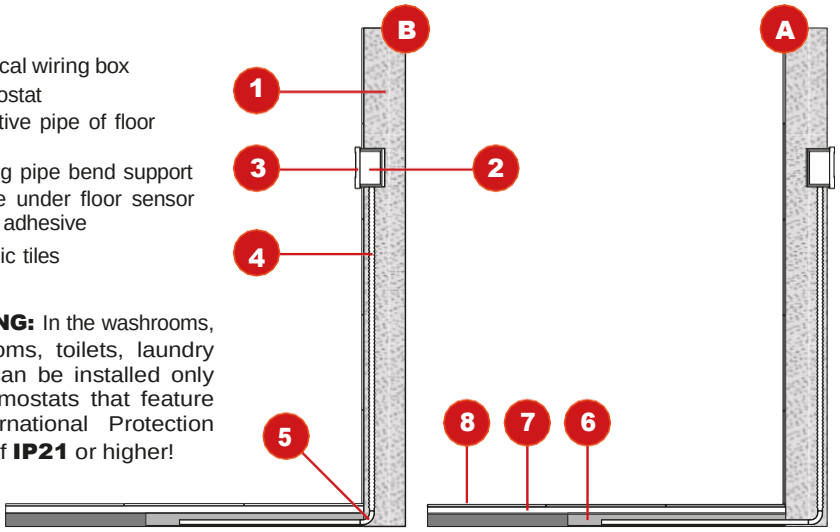
We distinguish two types of a thermostat installation in the washroom.

A – An assembly of a thermostat outside the washroom. A protective pipe of a temperature sensor has been provided on the external wall downwards, and then it has been introduced into a groove made in the flooring, under a heating mat.
If a controller features an International Protection Rating of IP 20, it must be installed pursuant to installation type A.

B – An assembly of a thermostat inside the washroom. A protective pipe of a temperature sensor has been provided on the washroom internal wall and a temperature sensor has been installed in the groove made in the flooring, under a heating mat. If a controller features an International Protection Rating of IP 21 it may be installed inside a room pursuant to installation type B.

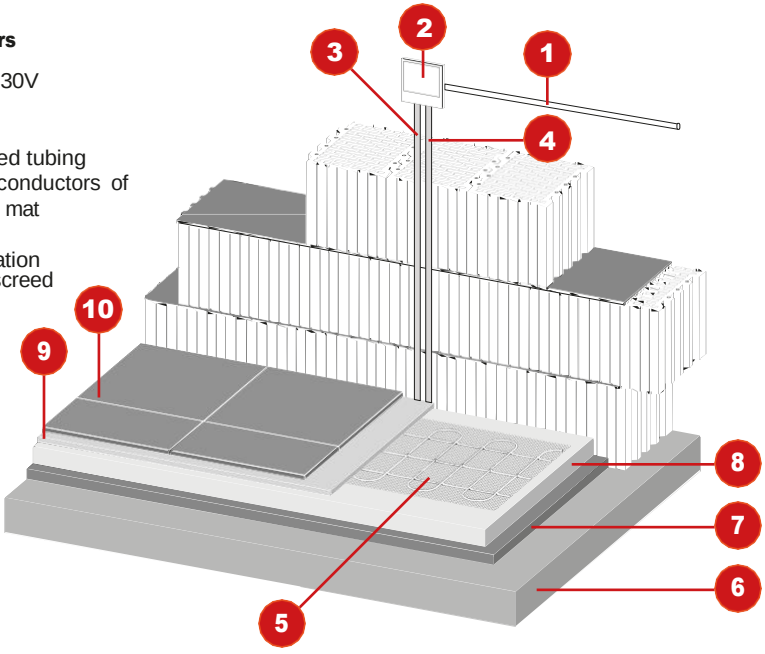
1. Wall
2. Electrical wiring box
3. Thermostat
4. Protective pipe of floor sensor
5. Leading pipe bend support
6. Groove under floor sensor
7. Elastic adhesive
8. Ceramic tiles

WARNING: In the washrooms, bath rooms, toilets, laundry rooms can be installed only the thermostats that feature an International Protection Rating of **IP21** or higher!

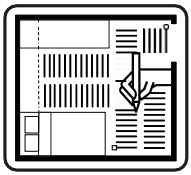


Cross-section of layers

1. Power supply line 230V
2. Thermostat
3. Pipe of floor sensor
4. Protective corrugated tubing with power supply conductors of
5. TERMOFOL heating mat
6. Ceiling
7. Floor thermal insulation
8. Floor self-levelling screed
9. Elastic adhesive for floor heating
10. Ceramic tiles



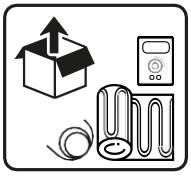
Assembly of electrical floor heating



1. Design

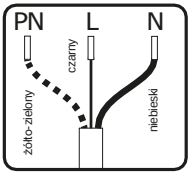
It is an activity required to recognize and maintain a warranty, and at the same time a document that facilitates a diagnosis of the system.

Mark a site where a thermostat, a temperature sensor, power supply conductors in the design and draw up a plan of heating mat arrangement while considering the safety zones.

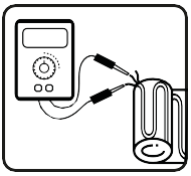


2. Product verification

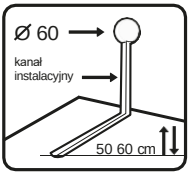
Unpack the products from a package and prepare them for an assembly. Verify if you have the required tools.



In the one-side powered heating mats a heating conductor consists of: **PN** – Earth conductor **N** – Neutral conductor **L** – Live conductor.

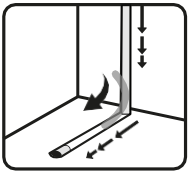


Execute the first resistance measurement of the conductor and lagging. Enter a result to a warranty card.

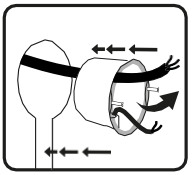


3. Installation preparation

Make a hole for an electrical wiring box, and then an installation duct up to a floor sensor installation site in the flooring. The duct should have a doubled width on the wall in order to fit a protective corrugated tubing and a pipe of a floor sensor in it.

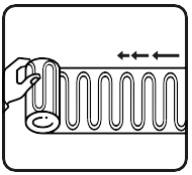


Install a protective pie of a floor sensor, and then put a temperature sensor into it so that an end of the sensor reached an end of the pipe. Then insert a leading pipe bend support on a pipe and embed it in a grove.



Insert power supply conductors of a house installation, conductors of a floor sensor, and then embed the box in the executed hole. Be careful not to damage the conductors of the temperature sensor.

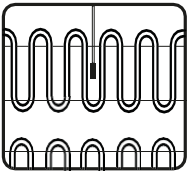
Eliminate all contaminations from the room, level the existing irregularities, and then prime the floor surfaces with a primer.



4. Mat installation

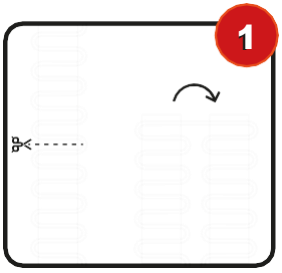
Roll out a mate, wait approximately one hour as an assembly mesh requires preliminary straightening.

Begin an arrangement of the heating mat while using a formerly prepared design.

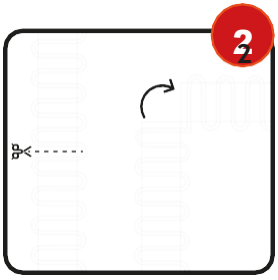


Arrange a mat in a site where a floor temperature sensor is assembled so that the sensor is between two heating conductors. It is of great importance to maintain the equal distances between the conductors.

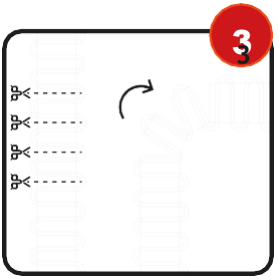
A distance of the sensor from the wall must be of 40–60 cm. Remember to maintain a 10 cm distance between the heating mat and the walls. In the case when it is necessary to wrap up a heating mat below can be found three manners of its correct arrangement.



Parallel curl



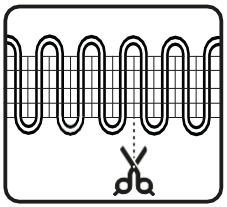
Right angle curl



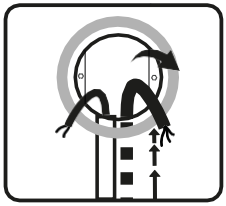
Wrap with a wide arch

WARNING!

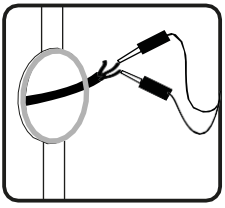
IT IS FORBIDDEN TO SHORTEN A HEATING CABLE!



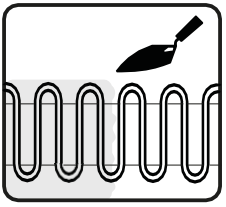
In any case shaping of a heating mat consists in extending a base mesh without compromising a heating cable.



Upon arranging a heating mat according to a plan, insert a power supply conductor to a protective corrugated tubing and lead it to a box, then cut out appropriately.



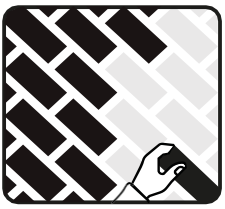
Upon inserting a conductor, make the second measurement of resistance in respect of a heating mat. Enter a result to a warranty card.



5. Mat gluing

Cover a rolled-out mat with an even layer of an adhesive mortar so that the heating conductors are precisely covered with the mortar adhesive.

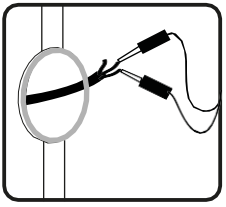
Leave the preliminary glued heating mat for 24 hrs. in order to dry it out. **WARNING!** Use only an approved elastic adhesive for floor heating. Apply it with a plastic trowel. IT IS FORBIDDEN TO USE METAL TROWELS!



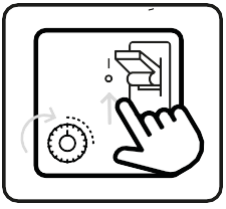
6. Floor finishing

Assembly the ceramic tiles arranging them on an adhesive layer with a thickness of 5–8mm. Exercise a special caution.

WARNING! It is forbidden to clean the grout gaps with the sharp tools in order not to damage the heating conductors. **WARNING!** Do not cut out, put on or break the tiles directly on the floor with a glued heating mat.



Upon finishing a floor and an adhesive curing, perform the third measurement of resistance of the heating mat. Enter a result to a warranty card.



7. Thermostat connection

Make a thermostat connection according to a diagram included in the assembly manual.

WARNING! A connection of a heating mat and a thermostat can be made only by an electrician who holds a valid certificate. Electrical qualification certificate!

WARNING! An installation must be secured by a residual current circuit breaker!

The first start-up

1. The first start-up should be performed after 25 days upon finishing a heating layer.
2. The first start-up lasts for 5 days. On the very first day, it should be adjusted to 19 °C, and then on each subsequent day increase a temperature by 1 °C until reaching 24 °C.
3. Upon an expiry of 5 days, the heating installation is ready to be used.

Obligations of installer and user

1. You should adhere to the provisions included in this assembly manual and recommendations.
2. An installer that performs an assembly of a heating mat is obliged to hand-over an assembly manual and the completed and signed warranty card to a user. The installer is obliged to enter a number of the SEP (Association of Polish Electrical Engineers) qualification certificate and make an actual plan of an arrangement of a heating mat.
3. It is forbidden to screw, cut, drill, hammer and execute the other construction works in a site where the heating mat is assembled.
4. In the case of a replacement of the floor ceramic tiles, the heating mats may be a subject of damaging. The enterprise that performs the construction works is responsible and liable for damaging the heating mats.
5. Remember to place furniture featuring a fixed joinery on the heating surface. In the case of the furniture assembly use the feet with a min. height of 3 cm.
6. Do not cover a floor with the carpets with a thickness larger than 8 mm
7. A user is obliged to store the assembly documentation and a proof of purchase.
8. Do not remove the labels – tags, which are on the TERMOFOL heating mats.

WARNING!

Fulfilling the above described and mentioned recommendations during the works related to an installation of a heating mat is necessary to a favorable consideration to the possible claims within a warranty period of the TERMOFOL heating mats.

Visualization of heating installation
floor covering for ceramic tiles

www.termofol.com
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+48 (12) 376 86 00

TERMOFOL

Model	Heating area [m²]	Mat dimension	Power [m²]	The power of the mat	Amp	Ohms	Tension
TF-HM-150-05	0,5	0,5 x 1	150	75	0.35	601,2	230V
TF-HM-150-10	1	0,5 x 2	150	150	0.7	352,7	230V
TF-HM-150-15	1,5	0,5 x 3	150	225	1.0	235,1	230V
TF-HM-150-20	2	0,5 x 4	150	300	1.3	176,3	230V
TF-HM-150-25	2,5	0,5 x 5	150	375	1.6	141,1	230V
TF-HM-150-30	3	0,5 x 6	150	450	2.0	117,6	230V
TF-HM-150-35	3,5	0,5 x 7	150	525	2.3	100,8	230V
TF-HM-150-40	4	0,5 x 8	150	600	2.6	88,2	230V
TF-HM-150-45	4,5	0,5 x 9	150	675	2.9	78,4	230V
TF-HM-150-50	5	0,5 x 10	150	750	3.3	70,5	230V
TF-HM-150-60	6	0,5 x 12	150	900	3.9	58,8	230V
TF-HM-150-70	7	0,5 x 14	150	1050	4.6	50,4	230V
TF-HM-150-80	8	0,5 x 16	150	1200	5.2	44,1	230V
TF-HM-150-90	9	0,5 x 18	150	1350	5.9	39,2	230V
TF-HM-150-100	10	0,5 x 20	150	1500	6.5	35,3	230V
TF-HM-150-120	12	0,5 x 24	150	1800	7.8	29,4	230V
TF-HM-150-150	15	0,5 x 30	150	2250	9.8	23,5	230V