

Schlüter®-DITRA-HEAT-E

Integrated surface heating system for tiles and natural stone



System components for floor and wall



PROFILE OF INNOVATION



Schlüter®-DITRA-HEAT-E

Schlüter-DITRA-HEAT-E is designed for installation in floors and walls, where it provides surface heating exactly where it's wanted. The unique combination of features of DITRA-HEAT-E make it the perfect companion for crack-free, and heated ceramic tile and natural stone coverings. Thus, the tile or stone is protected against permeating moisture, cracks from the substrate are not transferred to the covering, direct load transfer, and uncoupling guarantees the long life expectancy of floor and wall coverings.

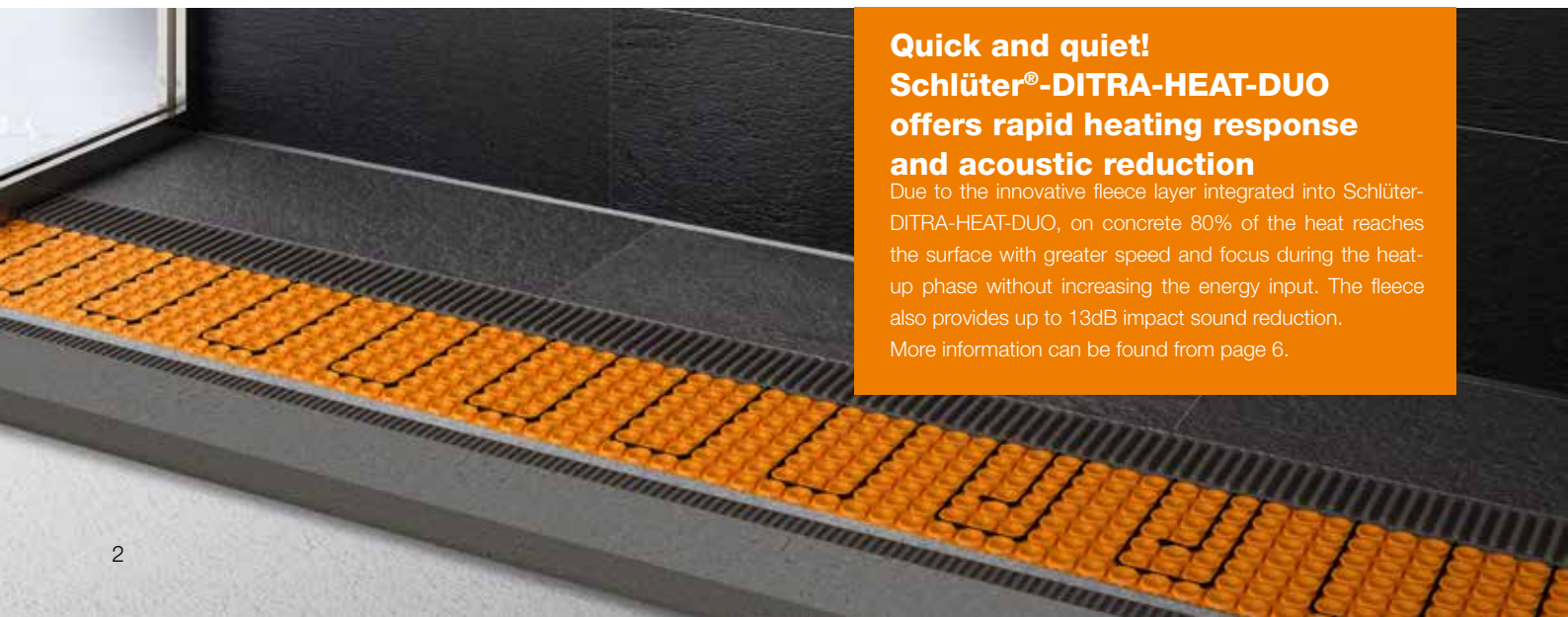


For floors and walls

Thanks to their ability to retain and evenly distribute heat, ceramic tiles and natural stone are not only ideally suited for floor heating, but also for use in walls. We therefore have consistently optimised the innovative Schlüter-DITRA-HEAT-E system for heating applications in comfort zones located in floors and walls.

Convincing benefits include:

- ✓ Creates cosy warmth in a short time
- ✓ Heating zones can be configured individually
- ✓ Low assembly height is ideally suited for renovation projects
- ✓ Uncoupling with proven Schlüter®-DITRA technology
- ✓ Suitable for installation over problematic substrates
- ✓ Certified system components
- ✓ Suitable as a primary heating system, in some applications.



Quick and quiet! Schlüter®-DITRA-HEAT-DUO offers rapid heating response and acoustic reduction

Due to the innovative fleece layer integrated into Schlüter-DITRA-HEAT-DUO, on concrete 80% of the heat reaches the surface with greater speed and focus during the heat-up phase without increasing the energy input. The fleece also provides up to 13dB impact sound reduction. More information can be found from page 6.



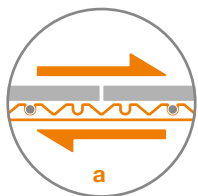
Applications in floors:

- Heating tiled floors in living rooms and bathrooms to supplement full-scale heating systems (barefoot zones)
- Buildings with very low heating energy needs (e.g. passive energy homes) as a backup
- Temporary heating of buildings that are only occupied occasionally, e.g. weekend homes
- Suitable as a primary heating system in conjunction with a matching thermostat, in some applications

Applications in walls:

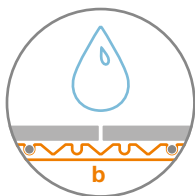
- Targeted heating of wall zones, for example for drying towels
- Heating of walls to prevent mould growth, for example in shower areas
- Creating comfort zones in relaxation areas, dining spaces, at desks or around seating arrangements
- Suitable as a primary heating system in conjunction with a matching thermostat, in some applications

Schlüter®-DITRA-HEAT-E



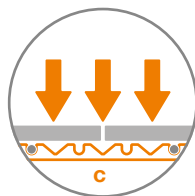
a) Uncoupling

Schlüter-DITRA-HEAT uncouples the covering from the substrate, neutralises stresses and bridges cracks.



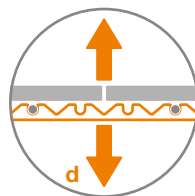
b) Waterproofing

Properly installed DITRA-HEAT creates a certified bonded waterproofing assembly with the tile covering.



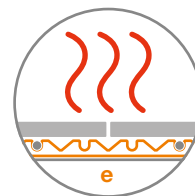
c) Load distribution (load induction)

Schlüter-DITRA-HEAT directly transfers traffic loads to the substrate. That makes the tile coverings installed on the assembly especially durable.



d) Bonded assembly

Thanks to the bond of the fleece fabric with the thin-bed tile adhesive over the substrate and its mechanical anchoring in the cut-back stud structure, Schlüter-DITRA-HEAT is suitable for use in both walls and floors.



e) Thermal separation

Schlüter-DITRA-HEAT-DUO heats up faster because of the 2 mm anchoring fleece laminated on the underside.



f) Impact sound insulation

The 2 mm anchoring fleece laminated on the underside of Schlüter-DITRA-HEAT-DUO also reduces impact sound.

Electrical underfloor heating

Schlüter-DITRA-HEAT-E is a complete underfloor heating system for creation of crack-free and comfortably warm floors. The heating cables of DITRA-HEAT-E are installed within the uncoupling mat for the targeted heating of the corresponding floor areas. With the flexible control of temperatures and heating times provided from the Schlüter-DITRA-HEAT-RS thermostats, you can use DITRA-HEAT-E to create warm tiles whenever and wherever you choose. In some cases, the system can also be used as a primary heating system, in certain applications.



Electrical floor heating for tiles and natural stone

In contrast to conventional systems using loose cable stuck with tape or a glue gun, or mesh based matting heating mats, Schlüter-DITRA-HEAT-E heating cables are installed within an uncoupling mat. This offers optimal freedom for defining the areas to be heated. Due to the crack-bridging properties of DITRA-HEAT, the system is suitable for installation over substrates such as timber substrates, green screeds, screed etc. without any risk of damage to the tile or stone covering. Naturally, the use of the proven Schlüter-DITRA technology also prevents damage to the covering from temperature fluctuations.

Because of its extremely low assembly height (uncoupling mat incl. heating cable from 5.5 mm), DITRA-HEAT-E can be easily retrofitted. It is also ideally suited for restoration and renovation projects. As a further benefit, the heating cables are directly embedded in the uncoupling mat with tile adhesive and are located directly underneath the tile or stone covering for even and efficient heat delivery.

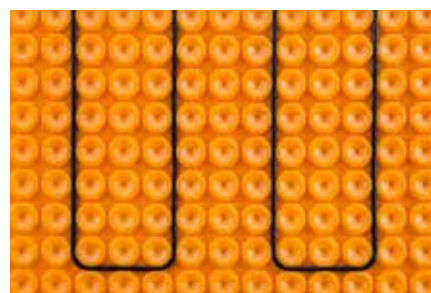
Electrical floor heating is a cost-effective solution because of the low investment and minimal auxiliary costs.



Installation in floors

In floors, the heating cable Schlüter-DITRA-HEAT-E is installed with a fixed installation spacing of 3 studs. This results in a heat dissipation of 136 Watt/m². If the box-sets don't fit the desired project dimensions, they can be supplemented with membranes supplied in mats or rolls and with heating cables in the required length. As an alternative, you can also individually configure a project from the start.

The integrated fleece on Schlüter-DITRA-HEAT-DUO provides faster initial heat-up. This means our system using 136 Watt / m² reaches temperature quicker and more efficiently than systems using a greater Watt / m².



136 W / m²

Warmth from the wall

Schlüter-DITRA-HEAT-E is an innovative solution for the electrical heating of ceramic tile and natural stone wall coverings. The installation of the DITRA-HEAT-E heating cables within the uncoupling mat creates targeted comfort zones in the wall that radiate gentle heat. The system thermostats flexibly manage the temperatures and heating times for maximum energy efficiency.



Targeted heating of wall surfaces

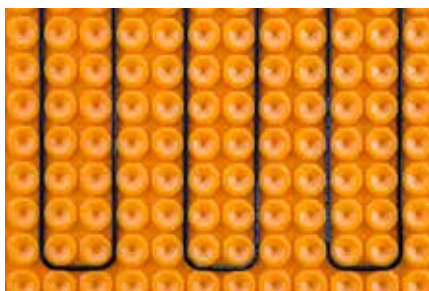
Bulky and unsightly radiators have been relegated to the past, today cosy heat comes from integration within the tile or natural stone finished wall.

Underwall heating from Schlüter-Systems is a unique solution that allows radiated heating beneath the surface, thus keeping the system protected and free from harm. Underwall heating can be used to prevent damp in the bathroom by thoroughly heating the area and drying out any residual moisture and towels drying without unsightly radiators.

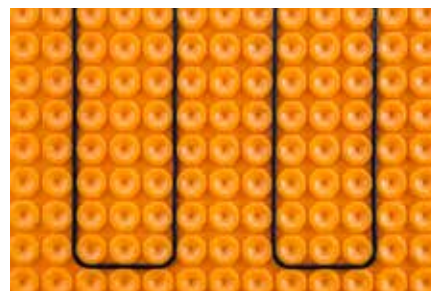
The highest temperature the wall will reach is a comfortable 40 °C at 200 W / m², this is hot enough to heat a bathroom without being hot enough to cause injury making it ideal where the elderly, infirm or young children are present.

Installation on the wall

In wall areas, the heating cable Schlüter-DITRA-HEAT-E can be installed with an installation spacing of either 2 or 3 studs. This results in a heat dissipation of 200 or 136 Watt/m². If the box-sets don't fit the desired project dimensions, then simply configure the individual components to the size of area you need to uncouple and heat.



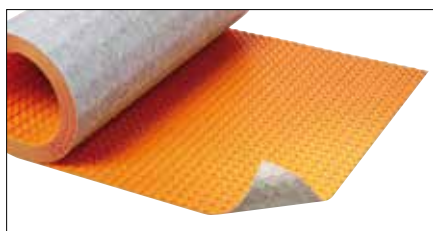
200 W / m²



136 W / m²

Schlüter®-DITRA-HEAT-E-DUO

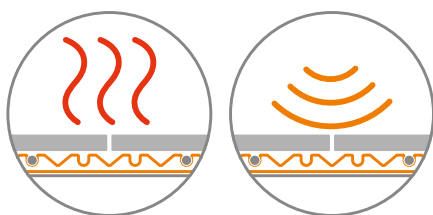
Schlüter-DITRA-HEAT-E-DUO is quick and quiet, providing optimal heating response, and up to 13dB impact sound reduction within its unique integrated fleece fabric on the underside of the membrane, drastically reducing heat radiation into the substrate. The thermal break on the membrane's underside pushes 80% of the supplied heat to the surface during the heat-up phase. Enabling a significantly faster heat-up response in the covering without any change in the low energy supply.



Quick and Quiet with integrated thermal and acoustic break.

The new Schlüter-DITRA-HEAT-E-DUO membrane is the ideal solution whenever heat is needed quickly and for a short time. To give an example, a residential bathroom that is only used in the morning and evening for 1-2 hours needs a particularly responsive system with high efficiency. Warmth is required on demand in defined comfort zones, for instance in front of a vanity.

One membrane - two functions



Thermal separation

Impact sound insulation

The thermal break in the form of an integrated fleece fabric is installed together with the DITRA-HEAT-E-DUO mat and offers certified impact sound reduction of up to 13dB, equivalent to a 50% reduction to the human ear!

All this and the proven functions of the DITRA technology, uncoupling, crack-bridging, vapour pressure equalization, load distribution and CE marked waterproofing.





Fast heat in the right place at the right time

Schlüter-DITRA-HEAT-E-DUO with its integrated thermal break ensures that the initial heat from the heating cables doesn't get lost into the screed below, but is transferred directly to the floor covering above.

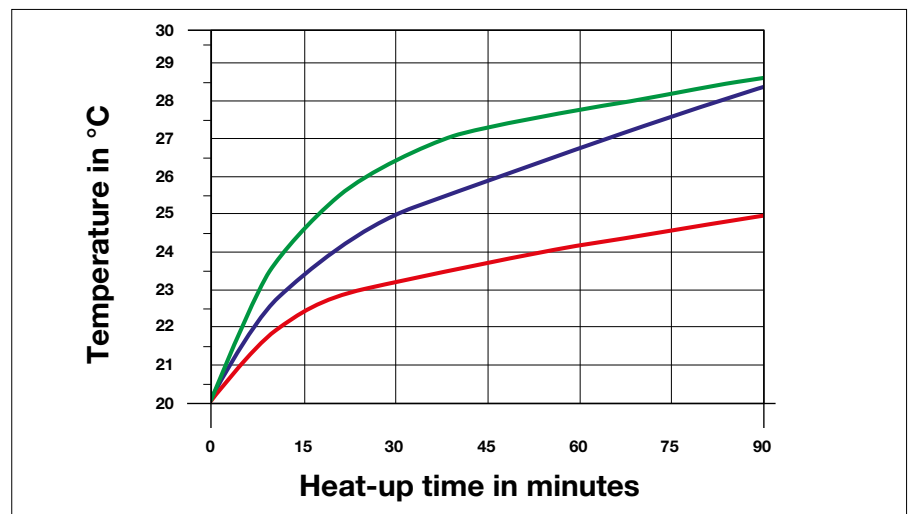
This makes DITRA-HEAT-E-DUO even more responsive than conventional systems with higher heating power.

This efficiency increase and the associated energy savings are immediately evident. Conventional systems radiate some 50% of their heat into the cold screed, which then returns the heat in an uncontrolled manner with a time delay.

In contrast, DITRA-HEAT-E-DUO radiates approx. 80% of the heat into the covering, with only approx. 20% going to the screed. For instance with 136 watts/m², upto 110 watts/m² would be felt through the tile and stone covering.

Where Schlüter-DITRA-HEAT-E is to be installed over hydronic underfloor heating system Schlüter-BEKOTEC-THERM we advise to Schlüter-DITRA-HEAT membrane as this has no thermal break rather than DITRA-HEAT-DUO as its thermal break will prevent heat transfer from BEKOTEC-THERM.

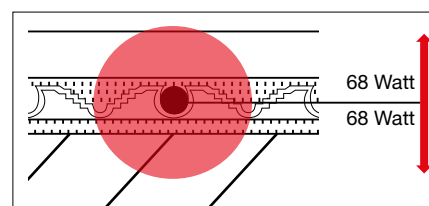
Heat-up test*



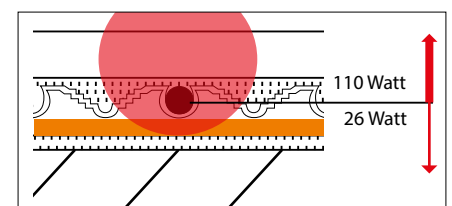
● Schlüter®-DITRA-HEAT-E (136 Watt)
● Conventional heating cable (200 Watt)

● Schlüter®-DITRA-HEAT-E-DUO (136 Watt)

Heat-up response in the starting phase*



● Schlüter®-DITRA-HEAT-E



● Schlüter®-DITRA-HEAT-E-DUO
With thermal break

*performed on unheated screed assembly in each case

What is the best use of each system?

Schlüter®-DITRA-HEAT-E

Schlüter®-DITRA-HEAT-E-DUO

	Schlüter®-DITRA-HEAT-E	Schlüter®-DITRA-HEAT-E-DUO
On conventional floor heating system	•	
On ceramic thermal comfort floor	•	
On wooden structure	•	•
On unheated screed		•
On load-bearing old covering (unheated)		•



Advantages of Schlüter®-DITRA-HEAT-E:



Pleasant room climate suitable for allergy sufferers

Rooms are heated with gentle radiated heat and maintain their natural air humidity so that no allergens are stirred up. This creates a pleasant, healthy room environment.



Precise control

With a choice of smart, digital and analogue thermostats, preferred temperatures can easily and precisely be set in every room. Smart control is available with the free Schlüter-HEAT-CONTROL app for Android and Apple iOS devices.



Full-scale heating system

Suitable as a full-scale heating system in conjunction with a corresponding thermostat (assumes heating output matches room requirements).



Cost efficient

System savings are calculated based on the expense of purchase, installation, maintenance and operation. Schlüter-DITRA-HEAT-E-DUO reacts faster during the heat-up phase saving time and money by pushing 80% of the heat to the surface.



Durable and maintenance-free

Absence of wear and tear makes the system virtually maintenance-free with a long life expectancy.



Easy to retrofit

Low assembly height ideal for refurbishment. (uncoupling mat incl. heating cable from 5.5 mm)



Simple to install

The heating wires are installed within the uncoupling mat, with tiles adhered in the adhesive directly above.



Safe to install

Schlüter-DITRA-HEAT-E-CT cable tester (available separately) monitors the resistance of heating cables during the entire installation phase. An acoustic signal alerts the installer in the event of damage.



Fast and efficient heating

The electrical heating wires take advantage of the thermal conductivity of ceramic tile and natural stone coverings and provides heat faster, efficiently, and consistently.



Prevents mould growth

Heating and fast drying of walls in shower areas helps prevent mould growth.



Discrete

Beautiful uninterrupted designs with ceramic tiles or elegant natural stone instead of unsightly and bulky heaters.



Certified system components

Schlüter-DITRA-HEAT/-DITRA-HEAT-DUO uncoupling and bonded waterproofing and the VDE-certified heating cable Schlüter-DITRA-HEAT-E-HK. The use of DITRA-HEAT in conjunction with heating cables for floor and wall heating is only approved for interior areas.



Convenient complete sets

Schlüter-Systems offers convenient sets for common sizes that include all necessary system components.



Ideal for use in combination with the ceramic thermal comfort floor

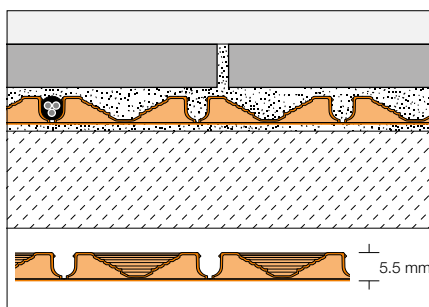
The system components Schlüter-DITRA-HEAT-E supplement the floor heating system Schlüter-BEKOTEC-THERM.



Schlüter®-DITRA-HEAT

Schlüter-DITRA-HEAT is a polyethylene membrane with a cut-back stud structure and an anchoring fleece laminated on the underside. It is a universal substrate for tile coverings, which serves as an uncoupling, bonded waterproofing, and vapour pressure equalization layer and is designed for the attachment of the matching system heating cables for floor and wall areas.

(Product data sheet 6.4)



Schlüter®-DITRA-HEAT-MA

polypropylene sheets

L x B = m²	Art.-No.	PL = Unit
0.8 x 0.98 = 0.78	DH5 MA	100

Schlüter®-DITRA-HEAT

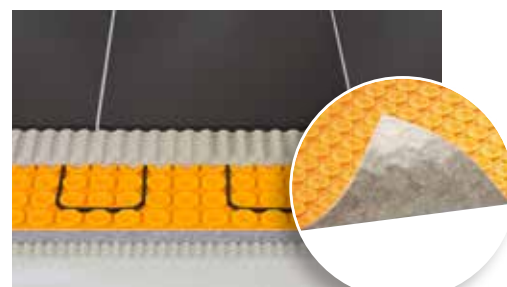
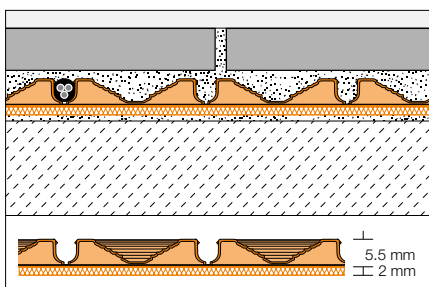
polypropylene rolls

L x B = m²	Art.-No.	PL = Roll
12.76 x 0.98 = 12.5	DH5 12M	6

Schlüter®-DITRA-HEAT-DUO

Schlüter-DITRA-HEAT-DUO is a polypropylene membrane with a cut-back stud structure and a special, 2 mm anchoring fleece laminated on the underside. It is a universal substrate for tile coverings, which serves as a bonded waterproofing, uncoupling, crack bridging and vapour pressure equalisation layer and is designed for the attachment of the matching system heating cables for floor and wall heating. The special anchoring fleece, in addition to reducing impact sound, enables faster heating of floor and wall coverings.

(Product data sheet 6.4)



Schlüter®-DITRA-HEAT-DUO-MA

polypropylene sheets

L x B = m²	Art.-No.	PL = Unit
0.8 x 0.98 = 0.78	DH D 8 MA	100

Schlüter®-DITRA-HEAT-DUO

polypropylene rolls

L x B = m²	Art.-No.	PL = Roll
10.20 x 0.98 = 10.0	DH D 810 M	6

Schlüter®-DITRA-HEAT-E-HK

Schlüter-DITRA-HEAT-E-HK is an electrical heating cable with a unilateral connection for installation in the uncoupling mat Schlüter-DITRA-HEAT.

(Product data sheet 6.4)



Heating cable

Schlüter®-DITRA-HEAT-E-HK

* Permissible in wall areas only!

Heating cable

L = m	heated floor or wall area in m² 136 W/m²	heated wall area in m² 200 W/m² *	Watt	Art.-No.	P = Unit
4.00	0.4	0.25	50	DH E HK 4	10
6.76	0.6	0.43	85	DH E HK 6	10
12.07	1.1	0.7	150	DH E HK 12	10
17.66	1.6	1.0	225	DH E HK 17	10
23.77	2.2	1.5	300	DH E HK 23	10
29.87	2.7	1.8	375	DH E HK 29	10
35.97	3.3	2.2	450	DH E HK 35	10
41.56	3.8	2.6	525	DH E HK 41	10
47.67	4.4	2.9	600	DH E HK 47	10
53.77	5.0	3.3	675	DH E HK 53	10
59.87	5.5	3.7	750	DH E HK 59	10
71.57	6.6	4.4	900	DH E HK 71	10
83.77	7.7	5.1	1050	DH E HK 83	10
95.47	8.8	5.9	1200	DH E HK 95	10
107.67	10.0	6.6	1350	DH E HK 107	10
136.16	12.7	8.4	1700	DH E HK 136	10
164.07	15.0	10.0	2050	DH E HK 164	10
192.27	17.7	11.8	2400	DH E HK 192	10
216.27	20.0	13.2	2700	DH E HK 216	10
244.37	22.7	15.1	3050	DH E HK 244	10

Note: Heating cables must not be shortened. When selecting the heating cable, please note that the table with the heated space in m² does not specify the room size. To determine the heated space, deduct unheated zones such as perimeter areas and storage space from the room size.



Schlüter®-DITRA-HEAT-E-R-WIFI

Schlüter-DITRA-HEAT-E-R-WIFI is a smart thermostat for full control of the electrical heating of floor and wall coverings with Schlüter-DITRA-HEAT-E. It can be operated via the 2" (5,1 cm) touchscreen display or remotely using a smartphone or tablet with the dedicated Schlüter-HEAT-CONTROL app. The smart thermostat can either be used exclusively to set the covering temperature or for temperature control with room

Schlüter®-DITRA-HEAT-E-R-WIFI

smart Wi-Fi touchscreen thermostat (230V)
with two remote sensors

Art.-No.	P = Set
DH E RT 5 / BW	10

air adjustment. A spare sensor is included in the scope of supply.

(Product data sheet 6.4)



Schlüter®-DITRA-HEAT-E-R

Schlüter-DITRA-HEAT-E-R is a thermostat with a 2" (5.1 cm) touchscreen display for the time-controlled electrical heating of floor and wall coverings with Schlüter-DITRA-HEAT-E. The device can either be used exclusively to regulate the covering temperature or to regulate the overall room temperature. A spare sensor is included in the scope of supply.

(Product data sheet 6.4)

Schlüter®-DITRA-HEAT-E-R

digital touchscreen thermostat (230 V)
with two remote sensors

Art.-No.	P = Set
DH E RT 2 / BW	10

Note: If the remote sensor is installed directly in the uncoupling mat Schlüter-DITRA-HEAT, the supplied spare sensor must be installed in the mat as well.



Schlüter®-DITRA-HEAT-E-R3

Schlüter-DITRA-HEAT-E-R3 is a thermostat with a 3.5" (8.9 cm) touchscreen display for the time-controlled electrical heating of floor and wall coverings with Schlüter-DITRA-HEAT-E. The device can either be used exclusively to regulate the covering temperature or to regulate the overall room temperature. A spare sensor is included in the scope of supply.

(Product data sheet 6.4)

Schlüter®-DITRA-HEAT-E-R3

touchscreen thermostat (230 V) with two
remote sensors

Art.-No.	P = Set
DH E RT 3 / BW	10

Note: If the remote sensor is installed directly in the uncoupling mat Schlüter-DITRA-HEAT, the supplied spare sensor must be installed in the mat as well.



Schlüter®-DITRA-HEAT-E-R4

Schlüter-DITRA-HEAT-E-R4 is an analog thermostat for the electrical temperature control of wall and floor coverings with Schlüter-DITRA-HEAT-E. The user-friendly thermostat has an on/off switch and a dial for adjusting the temperature setpoint. A spare sensor is included in the scope of supply.

(Product data sheet 6.4)

Schlüter®-DITRA-HEAT-E-R4

thermostat (230 V)
on/off switch with two remote sensors

Art.-No.	P = Set
DH E RT 4 / BW	10

Note: If the remote sensor is installed directly in the uncoupling mat Schlüter-DITRA-HEAT, the supplied spare sensor must be installed in the mat as well.



Schlüter®-DITRA-HEAT-E-CT

Schlüter-DITRA-HEAT-E-CT is a test device for measuring and checking the resistance of the electrical heating cables Schlüter-DITRA-HEAT-E-HK and the remote sensors supplied with Schlüter-DITRA-HEAT-E thermostats.

(Product data sheet 6.4)

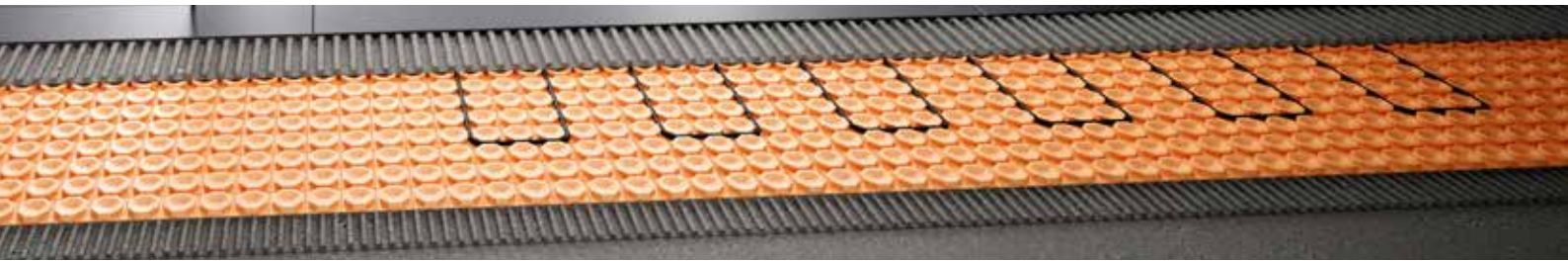
Schlüter®-DITRA-HEAT-E-CT

cable tester

Art.-No.	KV = Set
DH E CT	10







Schlüter®-DITRA-HEAT-E Complete sets

Convenient complete sets for the electrical temperature control of floor coverings are available for common room dimensions. They consist of the following components:

- Schlüter-DITRA-HEAT-MA uncoupling mat
- Schlüter-DITRA-HEAT-E-HK heating cable
- Schlüter-DITRA-HEAT-E-R thermostat

The sets include all required materials for installing your floor heating system in a convenient package. All you have to purchase is tile or stone, adhesive and grout.



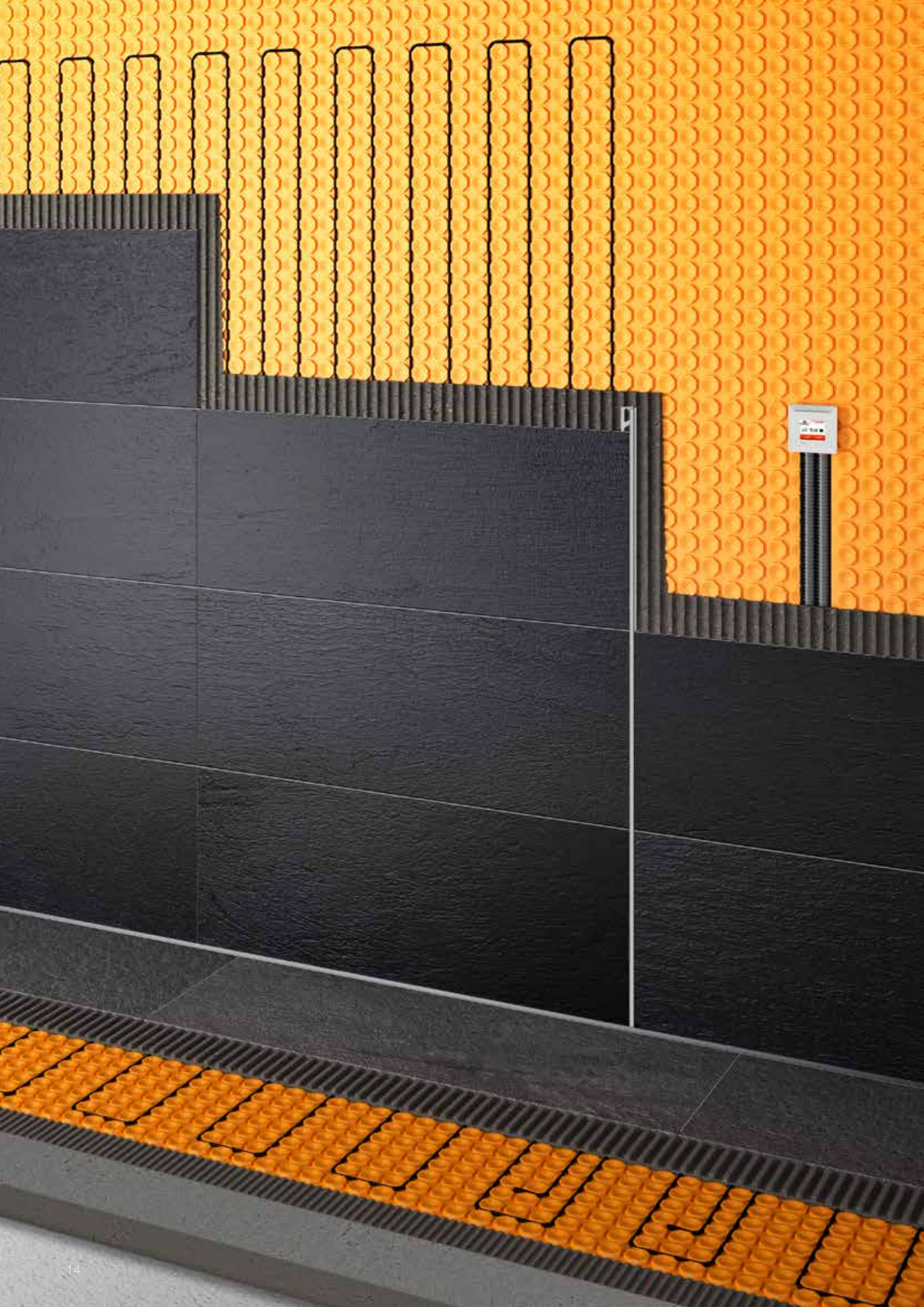
Sets for floors:

Schlüter-DITRA-HEAT-E-S includes:

- Schlüter-DITRA-HEAT-MA uncoupling membrane
- heating cable Schlüter-DITRA-HEAT-E-HK
- Schlüter-DITRA-HEAT-E-R thermostat
- 2 x sensors, (1 x redundant install)
- 2 x junction boxes
- 1 x conduit (3 m)

Schlüter®-DITRA-HEAT-E-S				
complete set for floor and wall				
Number of mats	uncoupled area in m²	heated area in m² 136 W/m²*	Art.-No.	P = Set
7	5.4	3.8	DH S1	4
10	7.8	5.5	DH S2	4
4	3.1	2.2	DH S3	9

* Installation around every third stud





Schlüter®-DITRA-HEAT-E-DUO Complete sets

Schlüter-DITRA-HEAT-E-DUO-S are complete sets for the electrical temperature control of floor and wall coverings.

They comprise the following components:

- Schlüter-DITRA-HEAT-DUO-MA uncoupling mats
- Schlüter-DITRA-HEAT-E-HK heating cable
- Schlüter-DITRA-HEAT-E-R-WIFI smart digital touchscreen thermostat with dedicated Schlüter-HEAT-CONTROL app.

Thanks to the special anchoring fleece, the uncoupling mat not only reduces impact sound, but also accelerates the heat-up response.


If needed, the uncoupled area can be extended with additional DITRA-HEAT-DUO mats.



Sets for floors:

Schlüter-DITRA-HEAT-E-DUO-S includes:

- Schlüter-DITRA-HEAT-DUO-MA uncoupling mats
- Heating cable Schlüter-DITRA-HEAT-E-HK
- Schlüter-DITRA-HEAT-E-R-WIFI smart digital touchscreen thermostat with dedicated Schlüter-HEAT-CONTROL app.
- 2 x sensors, (1 x redundant install)
- 2 x junction boxes
- 1 x conduit (3 m)

Schlüter®-DITRA-HEAT-E-DUO-S with WiFi Thermostat				
complete set for floor and wall with WiFi thermostat and integrated thermal break and acoustic fleece				
Schlüter®-DITRA-HEAT-DUO-MA		Schlüter®-DITRA-HEAT-E-HK	Art.-No. 	P = Set
Number of mats	uncoupled area in m²	heated floor area in m² 136 W/m² *		
2	1.5	1.1	DH D RT5 S1	9
3	2.3	1.6	DH D RT5 S2	9
4	3.1	2.2	DH D RT5 S3	9
5	3.9	2.7	DH D RT5 S4	8
6	4.7	3.3	DH D RT5 S5	8
7	5.4	3.8	DH D RT5 S6	5
8	6.2	4.4	DH D RT5 S7	5
9	7.0	5.0	DH D RT5 S8	4
10	7.8	5.5	DH D RT5 S9	4

* Installation around every third stud



Would you like to learn more about Schlüter®-DITRA-HEAT-E?



Talk to your retailer or visit our website at www.ditraheat.co.uk for further information.

Your retail store:



PROFILE OF INNOVATION

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