

EHC Heating Cables

- An economic method of heating a room and providing a luxurious warm floor
- Manufactured to highest quality for complete peace of mind and backed by a 10 year warranty
- Ideally suited to small and irregularly shaped rooms

Application

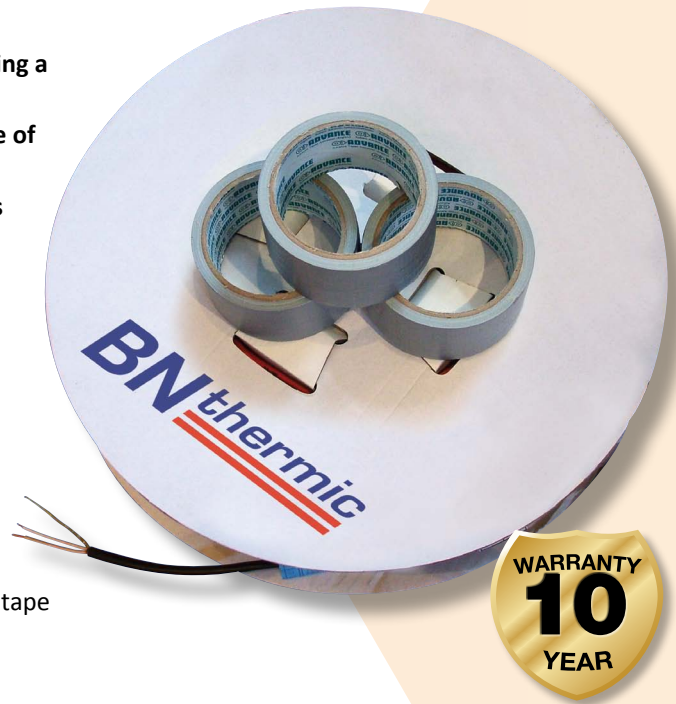
- Suitable for any room including conservatories, bathrooms and wet rooms
- Ideal for use with a wide variety of floor surfaces including ceramic tiles, porcelain tiles, marble, slate, stone, carpet, vinyl, engineered wood and laminate flooring.

Features

- Twin core heating cable supplied with high adhesion tape
- Pre-wired 3m power lead
- Continuous earth braid

Cable Specification

- Approved to EN60335-2-96 as required by the 17th Edition Wiring Regulations (BS7671.2008)
- EMC compliant
- 230V supply
- Twin core cable diameter 3mm to 4mm
- Earth screen protection by means of AL/PET Foil



Installation

Tiled Floor

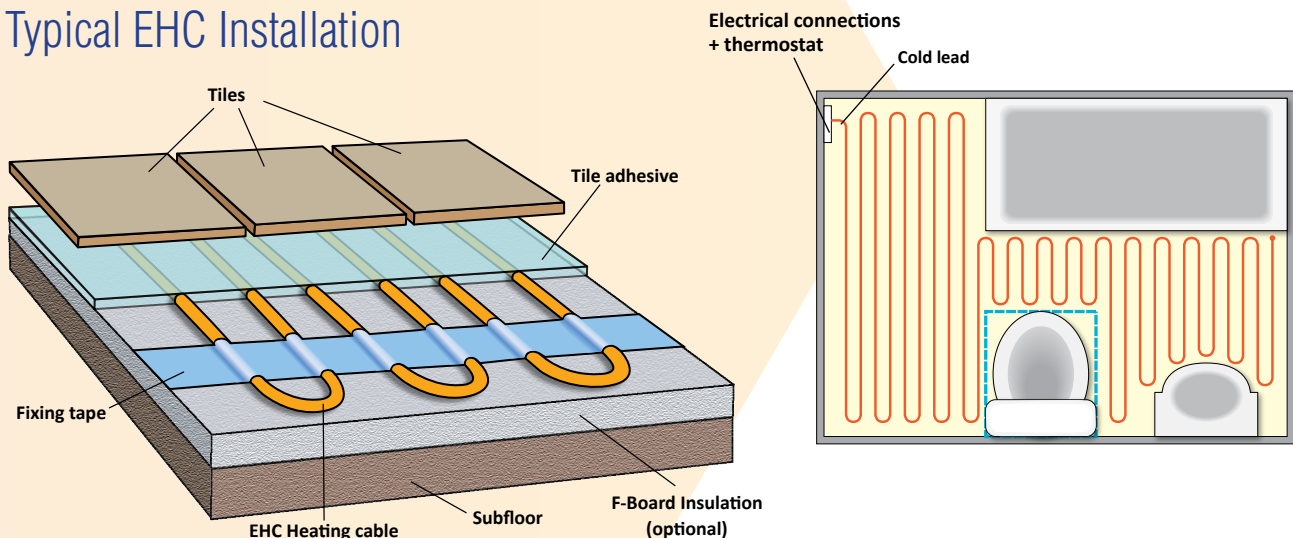
The EHC heating cable should be installed in a flexible self-leveling compound or directly into the tile adhesive. It is important that the heating cable is completely covered.

Other Floor Surfaces (carpet, vinyl, engineered wood and laminate floor)

The EHC heating cable should be completely covered in a flexible self-leveling compound with the required floor surface applied once the compound is completely dry. Great care must be taken to ensure that fixing devices are not driven through the heating cable.

Where underlay is required, the lowest tog option is recommended. If there is any doubt about the suitability of any given floor surface for use with underfloor heating, confirmation should be sought from the flooring supplier.

Typical EHC Installation



Selection

The objective is generally to cover as high a percentage of the free floor area as possible. The free floor area is defined as the floor area not occupied by permanent fixtures such as kitchen cabinets and shower trays.

Use the table provided to select the correct cable.

Large Rooms

For large rooms it is common practice to use more than one heating cable. In these circumstances there is a choice of subdividing the room into separate zones each controlled by its own thermostat or connecting the heating cables together electrically in parallel and using a single thermostat. When controlling more than one heating cable from a single thermostat it may be necessary to incorporate a contactor into the control circuit.

Control

Thermostatic control must be used. BN Thermic offers a range of thermostats all of which are supplied with a floor probe. The thermostats can be configured for primary control via the built-in air sensor or via the floor sensor.

When using more than one heating cable, check that the combined load of the heating cables is within the switching capacity of the selected thermostat. When the combined load is greater than the switching capacity of the selected thermostat an appropriately rated contactor must be selected.

A16C

Simplicity is the key. The A16C has a smart uncluttered appearance with a dial for temperature adjustment and an on/off switch. Capable of switching loads up to 3.4kW, the A16C is configurable for 'air and floor sensor' or 'floor sensor only'



A16C

Simple stylish control

U16C

The U16C offers simple 7-day programming with programming buttons hidden behind hinged doors on the thermostat face. Capable of switching loads up to 3.4kW, the U16C is configurable for 'air and floor sensor' or 'floor sensor only'. Features include a backlit screen and a summer switch allowing the heating to be switched off without losing the programme.



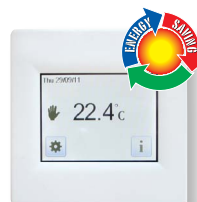
U16C

Fully programmable control

T16C

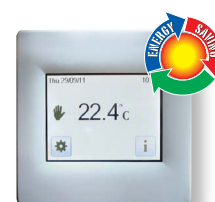
Our latest full colour touch screen thermostats can switch loads of up to 3.6kW and provide ultra-simple 7-day programming. Available with a choice of white or silver surrounds, the T16C can be configured for 'air and floor' or 'floor only' control. When required, the air temperature can be controlled via an IP65 rated remote mounted wall-sensor (T16R). This arrangement is particularly well suited for bathroom applications.

The T16C also allows the user to monitor energy usage and running costs



T16CW

Stylish 'state of the art' touch screen control



T16CS



T16R

Optional remote wall sensor for use with T16C thermostat

F-Board Insulation

To limit downward heat loss and to significantly improve the economy of an underfloor heating system, the use of F-Board insulated tile backer boards is highly recommended. Installed directly onto the sub-floor and below the heating cable, they provide exceptional thermal insulation with minimal increase in floor height. F-Board insulated tile backer boards are generally held in place using standard tile adhesive.

Selection

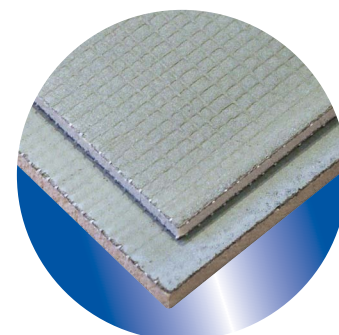
Each F-Board covers 0.72m² and sufficient boards should be selected to completely cover the floor area. Total floor area (m²) ÷ 0.72 = minimum number of boards required

F-Board-6

Provides an extremely effective insulation barrier where floor build-up must be kept to a minimum.

F-Board-10

As the effectiveness of insulation increases with thickness, F-Board-10 should be selected where maximum economy is required and additional floor build-up is acceptable.



F-Board-6 and -10
Significantly improving economy by restricting downward heat loss

EHC Continued

Features

- Full resistance to moisture absorption
- Combination of low profile, strength and thermal efficiency
- Lightweight and easily cut to shape
- Easily fixed in place using standard tile adhesive

Technical Specification

Compressive Strength	300kPa
Flexural Strength (transverse)	600kPa
Flexural Strength (longitudinal)	700kPa
Thermal Conductivity	0.027 w/m ² K
Water Absorption	0.2% by volume
Temperature range	-50°C to +75°C
Fire Performance	Class O (BS 476 part 6,7)

Accessories

Floorprep Primer

Suppresses dust and improves adhesion on a variety of sub-floor types including concrete and plywood. One bottle of Floorprep Primer covers approximately 6m² when diluted 1:1.

Floorprep is easily applied using a Floorroll Roller.

Floorprep is not required when using F-Board insulated tile backer board

EHM-R Kit - Cable Repair Kit (for emergency use only)

For use when a heating cable has been cut usually during installation or by drilling through the floor.

Floorprep Primer & Roller
Prepares a sub-floor
for EHC Heating Mat
installation



EHM-R Emergency Repair Kit
Rarely needed but always
immediately available

EHC Heating Cables - Specifications

Model	Volts	kW	Heated Area (m ²)	Cable Length (m)	Weight (kg)	Trade Price	Price Schedule
EHC-012	230	0.12	0.7 – 1.0	11	1.1	£38.00	H
EHC-020	230	0.20	1.1 – 1.5	19	1.2	£41.00	H
EHC-025	230	0.25	1.6 – 2.0	24	1.4	£47.00	H
EHC-032	230	0.32	2.1 – 2.5	32	1.6	£58.20	H
EHC-040	230	0.40	2.6 – 2.9	37	1.7	£61.00	H
EHC-045	230	0.45	3.0 – 3.3	46	2.0	£74.20	H
EHC-052	230	0.52	3.4 – 3.8	50	2.4	£77.00	H
EHC-060	230	0.60	3.9 – 4.5	64	2.7	£98.00	H
EHC-075	230	0.75	4.6 – 6.0	76	2.9	£107.00	H
EHC-095	230	0.95	6.1 - 7.5	87	3.2	£129.00	H
EHC-110	230	1.10	7.6 – 8.5	115	4.0	£160.00	H
EHC-130	230	1.30	8.6 – 10.0	131	4.8	£185.00	H
EHC-170	230	1.70	10.1 – 13.0	159	6.3	£250.00	H
EHC-200	230	2.00	13.1 – 15.5	194	8.4	£332.00	H

Thermostats

Model	Load	Operation	Sensor
A16C	15A	Manual Thermostat	Air and floor or floor only
U16C	15A	Programmable Thermostat	Air and floor or floor only
T16CW	16A	Programmable Touch Screen (White)	Air and floor or floor only
T16CS	16A	Programmable Touch Screen (Silver)	Air and floor or floor only
T16R	Optional IP65 remote sensor for use with the T16C touch screen thermostat		

Contactors

Model	Amperage	Max kW	Enclosure Type
CON-20	20	4.4	A
CON-40	40	7.8	B
CON-63	63	12	B
ENCL-A	Contactor Enclosure Type A		
ENCL-B	Contactor Enclosure Type B		

Contactor and Enclosure

The contactor allows a thermostat to switch the combinations of EHC Heating Cable required for larger rooms



Accessories for EHC

Model	Description	Dimensions (mm)	Area Covered (m ²)
F-Board-6	Insulation	1200 x 600 x 6	0.72
F-Board-10	Insulation	1200 x 600 x 10	0.72
Floorprep	Primer 500ml (covers 6m ² approx - diluted 1:1)		
Floorroll	Roller for applying Primer		
EHM-R-Kit	Cable Repair Kit (for emergency use only)		