

MAPEHEAT CABLE

Radiant-heating cable for the creation of heated floors

DESCRIPTION

Mapeheat Cable is a free-form, twincoil, floor-heating cable for use in any residential or commercial interior room where the comfort of radiant floor heating is desired. The cable can be spaced on site to provide 150, 125, 95 W/m² based on the desired wattage output requirements of the installation. **Mapeheat Cable** is available in 11 sizes from 14.5m-175m covering spaces from as small as 1.1 m² and up to 22.2 m². The **Mapeheat Cable** is well suited for use in combination with MAPEI **Mapeheat Membrane Maxi**.

FEATURES AND BENEFITS

- Heats many types of flooring, such as tile, stone, luxury vinyl tile (LVT) and engineered wood.
- Suitable for wet environments, such as showers and steam rooms.
- Ultra thin cold-lead splice fits easily into **Mapeheat Membrane Maxi**.
- Zero EMF (electromagnetic field) cable design.
- Available in 230 V.
- Industry-leading customer service with a 12-year limited warranty.

WHERE TO USE

- Any interior, residential or commercial area.
- Approved for use with the following finished flooring: Ceramic tile, porcelain tile, granite, marble, natural stone and luxury vinyl tile (LVT).

RECOMMENDATIONS

- Never cut, shorten or modify the heating cable in any way; it will change the electrical characteristics of the cables and possibly cause overheating and a fire.
- Never allow the cable to overlap or cross over itself.
- Not suitable for exterior applications.
- Do not use with solid, hardwood flooring.
- If LVT is being installed, ensure that the manufacturer's instructions allow for use with radiant heating systems and that the LVT is acclimated at least 24 hours before installation.
- Do not place objects directly on top of the floor that could impede/trap heat emanating from the floor heating system including but not limited to flush-to-floor furniture, rubber or memory-foam mats, and mattresses. These objects could cause unsafe temperatures to be reached underneath these objects that may damage the object and/or the flooring material.

- Do not install **Mapeheat Cable** in direct contact with any combustible surfaces, or install it in/on/under walls or in closets.
- Do not lay heating cable under cabinets, fixtures or appliances.
- Do not extend **Mapeheat Cable** beyond the room or area in which it originates.
- Do not use over cracks or control joints subject to out-of-plane movement, or where in-plane movement exists greater than 3 mm.
- Do not use over Woodplank flooring, metal, fibreglass, laminate or any other dimensionally unstable substrate.
- Do not use in areas that will be constantly submerged or subject to standing water.
- Do not use on bituminous substrates.
- Do not use on highly flammable material.
- The total R-value of layers on top of heating products should not exceed R value of 0,15m²K/W.
- Floor temperature is limited by the thermostat to +40°C. The typical operating temperature range of Mapeheat systems is +27°C to +35°C.

SUITABLE SUBSTRATES

- When used over sand/cement screed, the screed must be suitable to support tile installation traffic without leaving indentation as determined by the project design professional, construction manager or general contractor.
- Cement mortar beds and levelling coats.
- Tile backer boards.
- Exterior grade plywood refer to BS 5385 part 3.
- Existing, well-bonded ceramic tile and dimensionally stable natural stone.
- Existing, cement terrazzo floors.

Consult MAPEI's Technical Services Department for installation recommendations regarding substrates and conditions not listed.

SURFACE PREPARATION

- All substrates should be dry, flat, structurally sound and free from loose materials, grease, oil, and any contaminant that can reduce the quality of the bond.
- Anhydrite or screeds containing calcium sulphates should be dry to 0.5%w/w when measured with a carbide hygrometer. All surface laitance should be removed and the screed should be primed with a suitable MAPEI primer.
- To improve the upward heat transfer from the cable to the flooring surface, best practice is to insulate the concrete slab subfloor before installing **Mapeheat Cable**.

INSTALLATION GUIDELINES

- Before installing consult a qualified electrician.
- Any modification of or tampering with **Mapeheat Cable** will completely void the manufacturer warranty and liability.
- Do not connect the **Mapeheat Cable** while it is on the spool; this could damage the cable and cause a fire.
- Use heating cables only for electric underfloor heating.
- The minimum bending radius of the cold lead is 15mm and heating wire is 30 mm.
- The installation of **Mapeheat Cable** must be in accordance with these instructions and in accordance with the relevant UK and or EU standards. Please see the **Mapeheat Cable** Installation Manual for more information.
- The thermostat used in the floor-heating system must be compliant with the relevant UK and EU standards.
- Only a licensed electrician should connect the system to household wiring and perform all electrical connections in accordance with the relevant British Standards.
- Caution should be taken to guard against risk of electric shock, fire and bodily injury during the installation of this equipment.

- **Mapeheat Cable** should be connected to a dedicated electrical circuit.
- It is mandatory to use a 30mAmp Earth leakage current breaker (RCD) and a 10A (Type C) circuit breaker.
- De-energize power circuits before installing or servicing **Mapeheat Cable**.
- If tile is being installed, do not use sharp tools or power tools to clean grout lines. Cable damage identified at the grout line will void the warranty and liability.
- **Mapeheat Membrane Maxi**, is the only approved accessories to secure **Mapeheat Cable** onto the subfloor.
- Indicate on the electrical panel which circuit is used for the **Mapeheat Cable** System.
- The entire heating portion of **Mapeheat Cable** and mechanical joint must be secured to the floor and covered with self-levelling underlayment or tile adhesive.
- Keep the ends of heating devices and kit components dry before and during installation.
- To improve the upward heat transfer from the cable to the flooring surface, insulate the concrete slab subfloor before installing **Mapeheat Cable**.
- The ambient/air temperature must be above 10°C when the cable system is installed.
- Be sure to install the temperature sensing probe (included with the thermostat or sold individually) before installing final finished flooring.
- For further details, see the **Mapeheat Cable** Installation Handbook available at www.mapei.co.uk or inside the **Mapeheat Cable** packaging.



PACKAGING

Mapeheat Cable is available in lengths from 14.5 m to 175 m in complete packs including all needed accessories to install the cable and spooled on an inventive and easy to unroll spooling system.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.co.uk.

PRODUCT FOR PROFESSIONAL USE

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Colour:	black
Length:	14.5 m up to 175 m
Material:	Copper with PVC outer jacket

Thickness:	4mm in diameter
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PRODUCT COMPONENT

Product specifics:	Two single-conductor, Tefzel-coated resistance wires covered by a tin-plated copper braid and then coated with a durable copolymer (PVC) outer jacket
Heating cable:	2-wire, grounded, twisted pair with PVC outer jacket
Cold lead:	2-wire, plus ground braid; LSOH outer jacket; length of 2.5 m
Mechanical joint:	Connecting joint between the heating cable and the cold lead

FUNCTIONS

Operating voltage:	230 V
Power output*:	12 W/m
Minimum bending radius:	30mm
Minimum cable spacing:	75mm
Circuit breaker:	10A (Type C)
Earth leakage current breaker (RCD):	30mA, 100ms
Maximum continuous exposure temperature:	+90°C
Minimum installation temperature:	+5°C

Mapeheat Cable 12 W		A area (m ²)	
P Heating power (W)	L Length (m)	95 W/m ²	160 W/m ²
180	14.5	1.8	1.1
250	20	2.5	1.5
325	26.5	3.3	2.0
435	35.5	4.4	2.7
565	46	5.8	3.5
665	55	6.9	4.1
895	73	9.1	5.5
1210	98	12.3	7.4
1500	125	15.6	9.4
1800	150	18.8	11.3
2200	175	21.9	13.1
Calculations based on mapeheat cable being installed in to mapeheat membrane maxi		125mm (5 pillars)	75mm (3 pillars)

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who

intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.co.uk

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website www.mapei.co.uk.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

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