

MAPEHEAT MESH

Self-adhering, pre-wired, floor heating mesh



DESCRIPTION

Mapeheat Mesh is a self-adhesive, pre-wired, floor-heating mesh that can be adhered onto the subfloor during the layout process. Its compatibility with all subfloor types and its low profile (4.5 mm) make it ideal for renovation projects.

Mapeheat Mesh can be installed under ceramic tile, porcelain tile, natural stone, laminate flooring, engineered wood flooring and luxury vinyl flooring.

Mapeheat Mesh's heating cable is attached to the self-adhesive mesh layer by three mesh bands. These bands help to maintain consistent spacing of the cable while allowing easy removal of the cable during installation in hard-to-reach areas. Thanks to its twin coil design, the PVC-coated heating cable emits no measurable electromagnetic fields. Plus, the cable features a thin mechanical splice and a thin, flexible, 13.05m cold lead that is easy to embed in the subfloor and route to the thermostat's location.

FEATURES AND BENEFITS

- Easy to install under tile, stone, laminate, engineered wood and luxury vinyl floors (90w only).
- Use with a self-leveller (recommended) or a polymer-modified adhesive.
- Can be configured on site to fit any room.
- Suitable for wet environments such as showers and steam rooms.
- Low-profile cold lead and splice joint.

WHERE TO USE

- Use to provide comfort heating in bathrooms, kitchens, entryways and other interior living areas.
- **Mapeheat Mesh** is also approved for installation in wet areas such as showers and steam rooms.

	Mapeheat Mesh 90	Mapeheat Mesh 160
	Power Output W/m²	
	90 W/m ²	160 W/m ²
Cable	90mm	70mm
Tile	Recommended	Recommended
Wood/Laminate	Recommended	X
	Cold Lead Length	
	2.5m	5.0m

FLOOR CONSTRUCTION

All material in the floor construction should be appropriate for underfloor heating. **Mapeheat Mesh** can be installed on top of different kind of subfloors:

Subfloor	Mapeheat Mesh 90	Mapeheat Mesh 160
Sand:cement screed and concrete	X	X
Anhydrite/calcium sulphate-based screed	X	X
Suitable insulation board	X	X
Exterior grade plywood	X	
P5 grade chipboard	X	

Or any type of solid, stable and non-combustible material.

RECOMMENDATIONS

- Do not install beneath carpet, linoleum, solid hardwood, rubber or parquet. Install only beneath flooring types that are approved in this Technical Data Sheet.
- Do not use in exterior applications.
- Do not install in, on or under walls or inside closets.
- Do not use sharp tools or power tools to clean grout lines.
- The heating wire cannot be overlapped, crossed, cut, shortened or modified.
- The sheath of this device should not be utilized as a grounding conductor but must be bonded to the ground.
- The total combined R-value of all floor covering layers installed over **Mapeheat Mesh** must not exceed R-1.5.
- Do not cover expansion joints. Do not use over cracks or movement joints subject to out-of-plane movement, or where in-plane movement exists greater than 3 mm.
- Do not use over substrates containing asbestos, plank wood flooring, presswood, particleboard, chipboard, pressure- or oil-treated plywood, Lauan, Masonite, self-stick tile, laminate, metal, fiberglass or similar dimensionally unstable materials.
- Do not use for submerged applications or for floors subject to standing water.
- Do not use on bituminous substrates.
- Do not use on highly flammable material.

SUITABLE SUBSTRATES

- Tile adhesives or levelling/smoothing compounds.
- Cement backer boards – see manufacturer's installation guidelines.
- Industry-approved, exterior-grade plywood.
- Existing, well-bonded ceramic tile and dimensionally stable natural stone.
- Existing, structurally sound vinyl floor without any foam or cushioning mat underneath.
- Existing, cement terrazzo floors.

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

APPLICATION PROCEDURE

Preparation of the substrate

- All suitable substrates must be smooth, structurally sound and free of any contamination that could prevent or reduce proper bond and/or affect product performances.
- When applying moisture-sensitive floor coverings such as engineered wood or luxury vinyl tiles, in areas with high levels of moisture, a suitable MAPEI surface membrane, such as **Mapeproof ESM** and a suitable MAPEI cement based smoothing compound should be applied prior to installing **Mapeheat Mesh**.
- Calcium sulphate screeds must be dry to a moisture content of 0.5% w/w when measured using the carbide method. All surface laitance must be removed by mechanical abrasion and all dust thoroughly removed by vacuum. Prime the surface with **Eco Prim T Plus** (diluted 1:2 with water) or alternatively **Primer G** (neat).
- Cementitious substrates must be cured and any shrinkage process must be at an end before tiles are installed. Concrete must be at least 6 weeks old, cement based screeds at least 3 weeks unless they have been produced using the special MAPEI binders **Mapecem** or **Topcem** or with a pre-blended screed mix such as **Mapecem Pronto** or **Topcem Pronto**.
- The substrate surface should ideally be open textured. Power floated concrete should be mechanically abraded (scabbled or shot-blasted) to open up the surface and to remove any curing agents.

EXPANSION JOINTS

- Honor expansion joints through Mapeheat Mesh, tiles and grout per tile industry standards.
- When necessary, cut tiles along both edges of the expansion joints. Do not allow tiles and adhesive to overlap the

expansion joints.

• Refer to British standards and designer/architect.

PRODUCT INSTALLATION

Install as per the “**Mapeheat Mesh** Installation Manual” provided inside the packaging and that is available for download at www.mapei.co.uk.

MAPEHEAT MESH – ORDERING DETAILS

Select the **Mapeheat Mesh** size that is no larger than the heated area. The heated area is the area of the floor that does not include such permanent fixtures as cabinets, toilets, sinks and baths. The selected kit can be configured on the jobsite to fit the shape of the area to be heated.

INSTALLATION EXAMPLE

Challenge:

A bathroom measuring 2.74 x 3.05m	8.36 m ²
Minus the cabinet area	-0.93m ²
Minus the toilet space	-0.56m ²
Minus the linen closet	-0.74m ²
Minus the shower area	-1.39m ²
Total area to be heated	4.74m²

Solution:

Choose a **Mapeheat Mesh** roll covering 4.65m².

* If the shower area is to be heated, select a 1.39 m² roll for that area.

PACKAGING

Mapeheat Mesh is available in various sizes from 1m² to 12m², dependent on wattage selected.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mapeheat Mesh is an article and referring to the current European regulations (Reg. 1906/2007/CE - REACH) does not require the preparation of the safety data sheet.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA

TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Colour:	Black heating wire attached to a red mesh.
Length:	2mm - 24m, dependent on wattage selected
Width:	0.5m
Material:	Self-adhering fiber glass mat
Thickness:	3.5mm
PRODUCT CHARACTERISTICS	
Operating voltage	230 V
Power output	90w/m ² or 160w/m ²

Minimum bending radius	12mm
Minimum cable spacing	75mm
Maximum storage temperature	+90°C
Minimum installation temperature	+10°C
Heating cable	2-wire, grounded, twisted pair with PVC outer jacket
Cold lead	2-wire, 16-18 AWG plus ground braid; length of 10 ft. (3.05m)

ACCESSORIES	
Mapeheat Thermo Connect thermostat	WiFi-enabled floor-heating thermostat. This programmable thermostat can be controlled using a mobile smart phone app (iOS and Android) or Web browser.
Mapeheat Thermo Touch thermostat	Color touchscreen programmable floor-heating thermostat with intuitive user interface and energy usage information.
Mapeheat Thermo Basic thermostat	Non-programmable thermostat for simple control of any electric floor-heating system.
Mapeheat Fault Sensor	Mapeheat Fault Sensor is used to verify the continuity of the heating cable and the integrity of its outer jacket during the installation process. The device connects to the cold leads of the cable and, if the heating cable is damaged, the alarm on the monitor will sound. The monitor can also be re-used for subsequent installations and to help troubleshoot any problems that may arise.
Mapeheat Cable Repair Kit	Mapeheat Cable Repair Kit can be used for repairing Mapeheat Mesh's heating cable if it has been damaged during installation.
Mapeheat Lead Wire Repair Kit	Mapeheat Lead Wire Repair Kit contains all materials needed to repair a damaged cold lead for Mapeheat Mesh.

SIZES FOR MAPEHEAT MESH

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PRODUCT CODES	PRODUCT SIZE	COVERAGE 90 WATT MAT	WATTS
2869601	0.5 x 2.0 m	1.0m ²	90
2869615	0.5 x 3.0m	1.5m ²	135
2869602	0.5 x 4.0m	2.0m ²	180
2869625	0.5 x 5.0m	2.5m ²	225
2869603	0.5 x 6.0m	3.0m ²	270
2869635	0.5 x 7.0m	3.5m ²	315
2869604	0.5 x 8.0m	4.0m ²	360
2869645	0.5 x 9.0m	4.5m ²	405
2869605	0.5 x 10.0m	5.0m ²	450
2869606	0.5 x 12.0m	6.0m ²	540
2869607	0.5 x 14.0m	7.0m ²	630
2869608	0.5 x 16.0m	8.0m ²	720
2869609	0.5 x 18.0m	9.0m ²	810
2869610	0.5 x 20.0m	10.0m ²	900
2869612	0.5 x 24.0m	12.0m ²	1080
		160 WATT MAT	
3221301	0.5 x 2.0m	1.0m ²	160
3221315	0.5 x 3.0m	1.5m ²	240

3221302	0.5 x 4.0m	2.0m ²	320
3221325	0.5 x 5.0m	2.5m ²	400
3221303	0.5 x 6.0m	3.0m ²	480
3221335	0.5 x 7.0m	3.5m ²	560
3221304	0.5 x 8.0m	4.0m ²	640
3221345	0.5 x 9.0m	4.5m ²	720
3221305	0.5 x 10.0m	5.0m ²	800
3221306	0.5 x 12.0m	6.0m ²	960
3221307	0.5 x 14.0m	7.0m ²	1120
3221308	0.5 x 16.0m	8.0m ²	1280
3221309	0.5 x 18.0m	9.0m ²	1440
3221310	0.5 x 20.0m	10.0m ²	1600

* Coverage is based on square room with a 5 cm unheated border.

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.

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