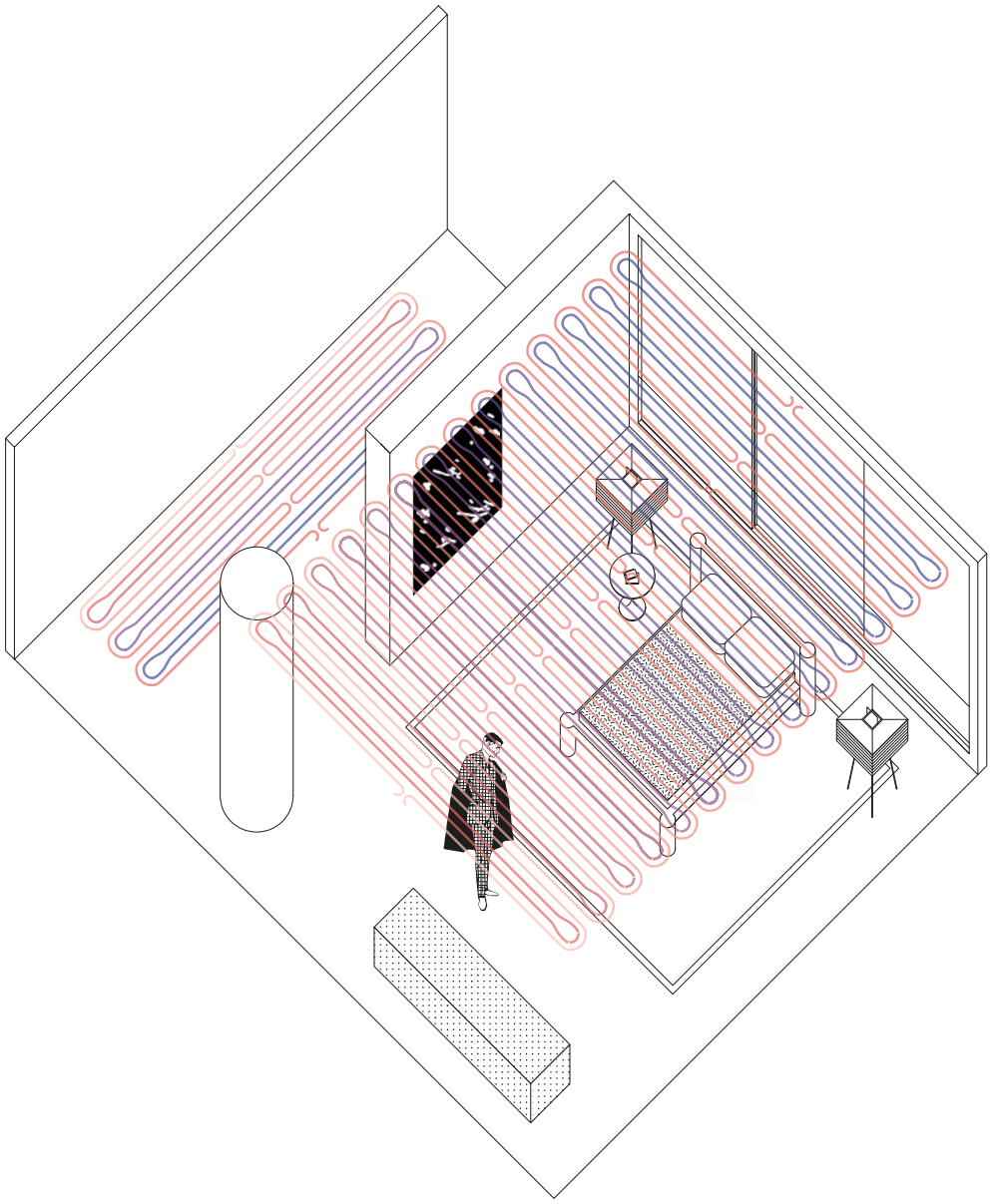
MORE FTA

HIGH-EFFICIENCY INSULATION PANEL FOR DRY INSTALLATIONS



TECHNICAL DATA SHEET
ST3977_00 MORE FTA

RBM MORE the wellbeing

HIGH-EFFICIENCY INSULATION PANEL FOR DRY INSTALLATIONS

- **No cement screed is needed.**
- **Very low thermal inertia: heats up in minutes.**
- **Great savings.**
- **Maximum comfort.**
- **Suitable for floor, wall and ceiling/false ceiling installation.**
- **Can be used in heating or cooling.**
- **Total thickness less than 35 mm.**
- **Quick and easy to install.**
- **Ideal for restorations and new homes with high energy efficiency.**

WHAT IS MORE FTA

It is a radiant heating system with very low thickness, minimal thermal inertia and high efficiency.

MORE FTA is a revolutionary radiant system without screed, featuring an extremely small footprint that makes it possible for you to implement finished systems in less than 35 cm thickness, including flooring.

Fast installation and instant walkability are the unique characteristics of the MORE FTA panel: in the case of floor installation, the same work team can perform system installation and complete the floor laying with no screed drying times (21 days and longer) and with no need to carry out the thermal shock that is mandatory for traditional systems (at least 7 days), thus avoiding downtimes at the building site and making the floor accessible right away.

The panel is supplied already coupled with the upper layer of aluminium, with further reduction in installation time. Also, a key feature of MORE FTA is thermal insulation under the pipework to limit heat loss.

Thanks to its shape and high mechanical resistance, the floor can be laid directly on the panel, generally without the need for load spreaders.*

* Refer to the installation instructions and cautions in the MORE FTA System installation and operating manual.

MORE FTA

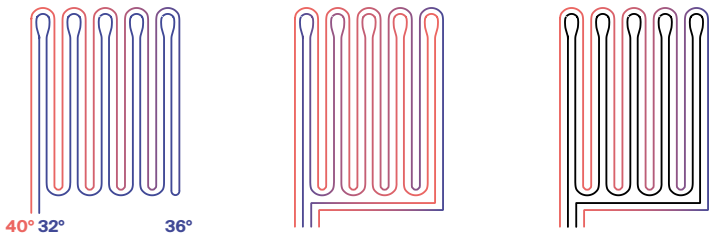
DIFFUSION OF SURFACE HEAT

single circuit

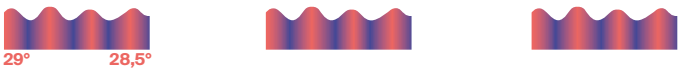
double coil with alternating circuits

100%

50%



SURFACE TEMPERATURE DISTRIBUTION



OTHER DRY SYSTEM

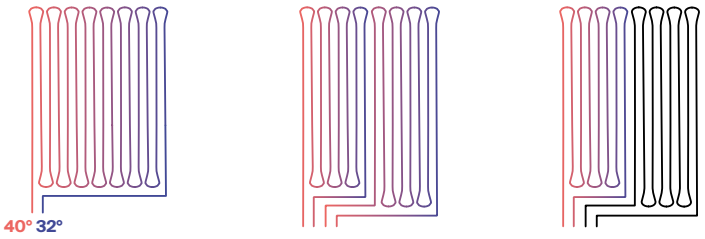
DIFFUSION OF SURFACE HEAT

single circuit

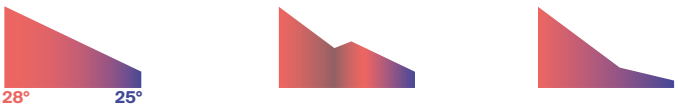
double coil with alternating circuits

100%

50%



SURFACE TEMPERATURE DISTRIBUTION

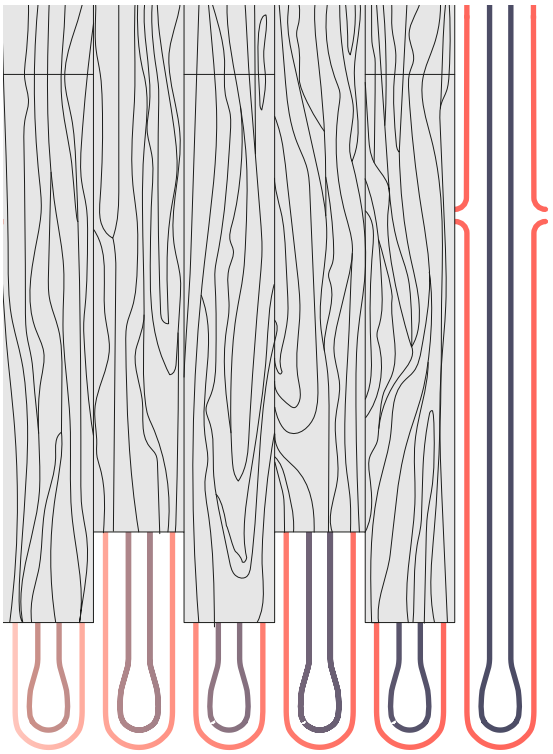


DESCRIPTION

USE

The MORE FTA panel is the ideal solution for new constructions, thanks to its very low thermal inertia and therefore reduced system adjustment times, which combines well with the high inertia of the building envelope and is also suitable for renovations and on mezzanines or in any case in which there is reduced room height.

Thanks to its flexibility of installation, MORE FTA can also be used on ceilings and false ceilings as well as on walls. In the latter case, the radiant panel is installed in the masonry and then covered with plasterboard or gypsum fibreboard.



LAYING THE PIPING

The panel has grooves in the EPS layer, designed to accommodate 16 mm diameter pipes of the RBM MORE PLUS (PE-RT Type II/EVOH/PE-RT) type series 3968.16. xx or MORE 4 FIN (PE-Xc/Al/PE-RT) series 3969.16.xx.

ADVANTAGES OF THE PANEL

The main advantages of the MORE FTA panel are:

- No screed;
- Quick, easy to apply and immediately walkable (no need to wait for the cement screed to dry);
- Minimum space required (overall thickness min. 35 mm including flooring);
- Very low thermal inertia of the system;
- Reduced weight;
- Versatility (ceramic or parquet finishing coatings can be laid directly on the panel*).
- increased thermal resistance;
- Under pipe thermal insulation.

WARNINGS

Prior to installing MORE FTA, a perfectly level and even substrate must be provided.

Installation pitch 160 mm

PRODUCTION RANGE

Description	Code	Panel dimensions [mm]	Th. Insulation [mm]	Thermal res. m^2 K/W	No. of panels per pack	Usable surface covered by 1 package
MORE FTA panel installation pitch **160 mm**	3977M2000	1200x800	20	0,56	23	22,08 m^2
	3977M2500	1200x800	25	0,71	19	18,24 m^2
	3977M3300	1200x800	33	0,95	15	14,4 m^2
	3977M4800	1200x800	48	1,41	10	9,6 m^2

Installation pitch 80 mm

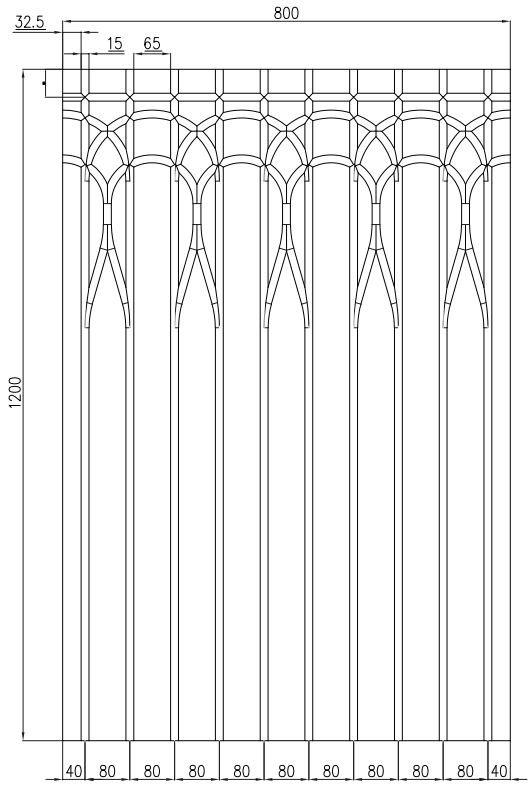
PRODUCTION RANGE

Description	Code	Panel dimensions [mm]	Th. Insulation [mm]	Thermal res. m^2 K/W	No. of panels per pack	Usable surface covered by 1 package
Panel MORE FTA laying pitch **80 mm**	3977M2010	1200x800	20	0,51	23	22,08 m^2
	3977M2510	1200x800	25	0,66	19	18,24 m^2
	3977M3310	1200x800	33	0,90	15	14,4 m^2
	3977M4810	1200x800	48	1,36	10	9,6 m^2

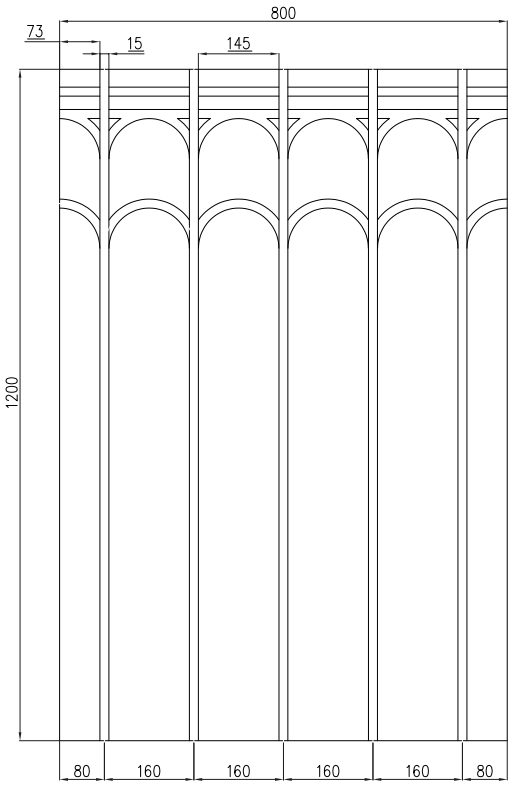
DIMENSIONAL FEATURES

Centre distance of the milling process, EPS panel for the pipe to be housed	Pitch 160 mm Pitch 80 mm
Panel dimensions	1200x800 mm - 0.96^{m2} useful surface area
EPS insulating thickness	20/25/33/48 mm
Pipe diameter applicable to the panel	external ø 16 mm - POLYETHYLENE MORE PLUS & MORE 4 FIT

EXAMPLE OF PIPE DEVELOPMENT AND MAIN DIMENSIONS



Panel with 80 mm installation centre distance



Panel with 160 mm installation centre distance

CONSTRUCTION FEATURES

Panel made of EPS 300 in grey colour, pre-formed for the creation of a radiant floor heating system, coupled on the surface with a smooth aluminium heat conducting sheet, with joints for the installation of pipes with an external diameter of 16 mm.

TECHNICAL FEATURES OF THE INSULATING PANEL (EPS 300)

EPS Classification (according to UNI-EN 13163)	EPS 300	
Thermal Conductivity	λD= 0.033	W / m K
Declared thermal resistance UNI EN12643:2021	R≈0.56/0.51 (th. 20) R≈0.71/0.66 (th. 25) R≈0.95/0.90 (th. 33) R≈1.41/1.36 (th. 48)	m^2 K / W m^2 K / W m^2 K / W m^2 K / W
Compressive strength at 10% crushing	σ_{10}≤ 300 CS(10)	kPa
Compressive strength at 2% crushing	σ_{2}≤ 90 CS(10)	kPa

REGULATORY REFERENCES

UNI EN 13163:2012 - Thermal insulation products for buildings - Evaluation of conformity.
UNI EN 12643:2021 - Water-based surface embedded heating and cooling systems - Sizing

MAIN COMPONENTS THAT CAN BE USED WITH THE MORE FTA PANEL

	Series	Description
	3968.16.10 3968.16.20	MORE PLUS pipe: 4-layer pipe for underfloor heating, made of polyethylene (PE-RT Type II/EVOH/PE-RT). The outer layer provides strong protection of the EVOH layer against the defects due to mechanical agents. (e.g. scratches, gouges...). EVOH oxygen barrier pipe, co-extruded, cod. 4726.
	3969.16.00 3969.16.10 3969.16.20	MORE 4 FIN pipe: multilayer PE-Xc/Al/PE-RT pipe series 1542.16.xx.
	472M.08.12	Base perimeter joint: expansion joint made of expanded polyethylene, coupled with LDPE sheet for mortar containment, 80 mm high, 5 mm thick and supplied in 25 m rolls. FOR FLOOR INSTALLATION ONLY.
	483M.25.02	Corrugated conduit: (diameter 25 mm per pipe d. 17 – diameter 32 mm per pipe d. 20-25 used as pipe protection. It provides indispensable protection when the pipes cross the expansion joints. Supplied in 50 or 25 m rolls.
	603M.18.12	Bend former for curves at 90°, made of polyamide with fibreglass. Used as a bend former and to provide pipe protection near manifold connection.
	778M.20.02	Moisture barrier made with a PE sheet, 0.2 mm thick. Roll supply, 200 m^2.
	2018M.00.02	Anodised aluminium adhesive tape: Used to avoid the formation of heat bridges between two adjacent panels and to create a single insulating layer.
	3702M.00.02	Adhesive MORE FTA AD: Used to stick Kilma Futura panels on the existing substrate support (smoothed cement screed, cement smoothing, ceramic or natural stone floors). Supplied in 1 kg canisters. Average use 0.10 - 0.15 kg/m2
	3055M.00.12	Epoxy PRIMER MF by Mapei: used to waterproof and protect the aluminised surfaces of the panel and piping in case of subsequent installation of floors with cement-based glues or self-levelling screeds. Supplied in a kit consisting of 1 x 3 kg drum of Primer + 1 x 1 kg drum of Reagent. Average use 0.2 kg/m^2.

SPECIFICATIONS

SERIES 2926
RBM MORE FTA insulating panel, with high mechanical resistance, in sintered expanded polystyrene type EPS 300, moulded with closed cells, covered on the top with aluminium foil, suitable for the construction of radiant air-conditioning systems with reduced thickness, without screed and load spreaders, with direct laying of the flooring on the panel and characterised by very low thermal inertia. Equipped with parallel straight seats for piping O16x2mm with pre-set pitch and head curves pre-shaped in the panel. Any additional seats and adhesions can easily be made on site by the installer using a common EPS milling machine. Due to the special shape of the guides, the system can be installed in a double-coil configuration for more even distribution of heat and, as a result, more perceived climatic wellbeing compared to single-coil installation typical of dry systems.

Thermal resistance according to UNI-EN 1264

Declared thermal conductivity: 0.033 W/m K

Designation and classification according to Directive 89/106 EC CS(10)300

Panel size 160 mm pitch: 1200x800 mm (usable area 0.96 m^2)

Panel size pitch 80 mm: 1200x800 mm (usable area 0.96 m2)

AVAILABLE IN THE FOLLOWING VERSIONS:

Thickness 20 mm (pitch 160 mm)
Minimum guaranteed thermal resistance = 0.56 m^2K/W

Thickness 25 mm (pitch 160 mm)
Minimum guaranteed thermal resistance = 0.71 m^2K/W

Thickness 33 mm (pitch 80 mm)
Minimum guaranteed thermal resistance = 0.95 m^2K/W

Thickness 48 mm (pitch 80 mm)
Minimum guaranteed thermal resistance = 1.41 m^2K/W

Thickness 20 mm (pitch 80 mm)

Minimum guaranteed thermal resistance = 0.51 m^2K/W

Thickness 25 mm (pitch 80 mm)

Minimum guaranteed thermal resistance = 0.66 m^2K/W

Thickness 33 mm (pitch 80 mm)

Minimum guaranteed thermal resistance = 0.90 m^2K/W

Thickness 48 mm (pitch 80 mm)

Minimum guaranteed thermal resistance = 1.36 m^2K/W

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