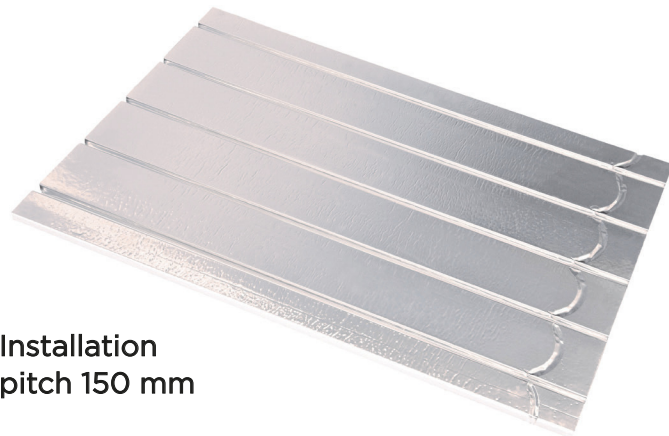


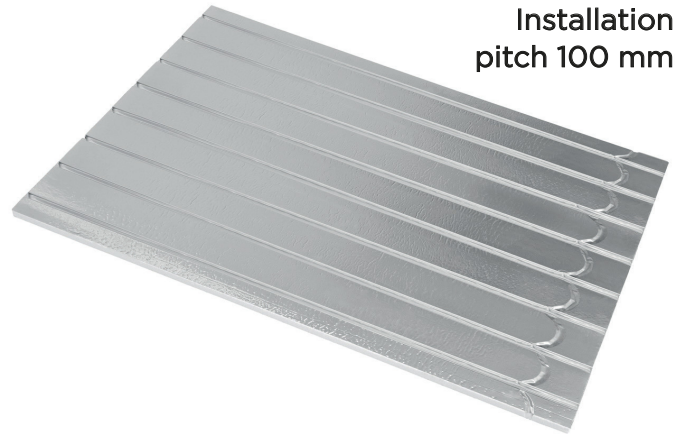
KILMA FUTURA PANEL



High efficiency insulation panel for dry installations.



Installation pitch 150 mm



Installation pitch 100 mm



No cement screed is needed



Can be used either in heating or cooling



Low thermal inertia: heats up in a few minutes



Total thickness less than 3 cm



Great savings



Quick and easy to install



Maximum comfort



Ideal for renovation projects and new highly energy-efficient homes



Suitable for floor, wall and ceiling/false ceiling installation

PRODUCTION RANGE

	Description	Code	Panel dimensions [mm]	Th. Insulation [mm]	Thermal res. m ² K/W	No. of panels per package	Usable surface covered by 1 package
	Kilma Futura Panel installation pitch 150 mm	2926.17.02	1175x750x17	17	0,265	10	8,80 m ²
		2926.25.02	1175x750x25	25	0,587	5	4,40 m ²
	Kilma Futura Panel installation pitch 150 mm	2926.25.12	1175x800x25	25	0,533	5	4,70 m ²
		2926.33.12	1175x800x33	33	0,780	5	4,70 m ²
		2926.48.12	1175x800x48	48	1,250	5	4,70 m ²

DESCRIPTION

Kilma Futura 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 3 cm** thickness, floor included.

Fast installation and instant walkability are the unique characteristics of the Kilma Futura panel: in the case of floor installation, **the same work team can perform the 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 aluminium layer, which further reduces installation times. Compared to several dry panelling systems available on the market, the Kilma Futura panel can be thermally insulated under the piping as well, in order to reduce heat dispersion.

Thanks to its features and its high mechanical resistance, **the panel allows laying the floor directly on it***, without the need to provide load allocators (loads for residential buildings).

USE: The Kilma Futura system is particularly suitable for renovation work and on mezzanines, and in all cases where there is a reduced height of the premises, but it is also increasingly used in new buildings thanks to the low thermal inertia and, therefore, low system commissioning times - which combines well with the high inertia of the building envelope. The Kilma Futura panel can also be installed to walls, thereby maximising environmental thermal comfort;

in this case, the radiant heating panel is installed to adhere to the wall and later covered with a layer of plasterboard or plaster fibre.

LAYING THE PIPING: The panel features grooves in the EPS layer, designed to accommodate pipes with a diameter of 16 mm of the RBM Kilma HI-PERFORMANCE PLUS (PE-RT Type II/EVOH/PE-RT) type, 2517.16.xx series, or Tita-Fix multi-layer (PE-Xc/Al/PE-RT) type, 1542.16.xx series.

ADVANTAGES OF THE PANEL: The main advantages of the Kilma Futura panel are:

- No screed;
- Quick, easy installation and immediate walkability (it is not necessary to wait for cement screed to dry);
- Extremely small footprint (**min. overall th. 28 mm, floor included**);
- Low thermal inertia of the system;
- Reduced weight;
- Versatility (allows laying ceramic or parquet finishing coatings directly on the panel*).

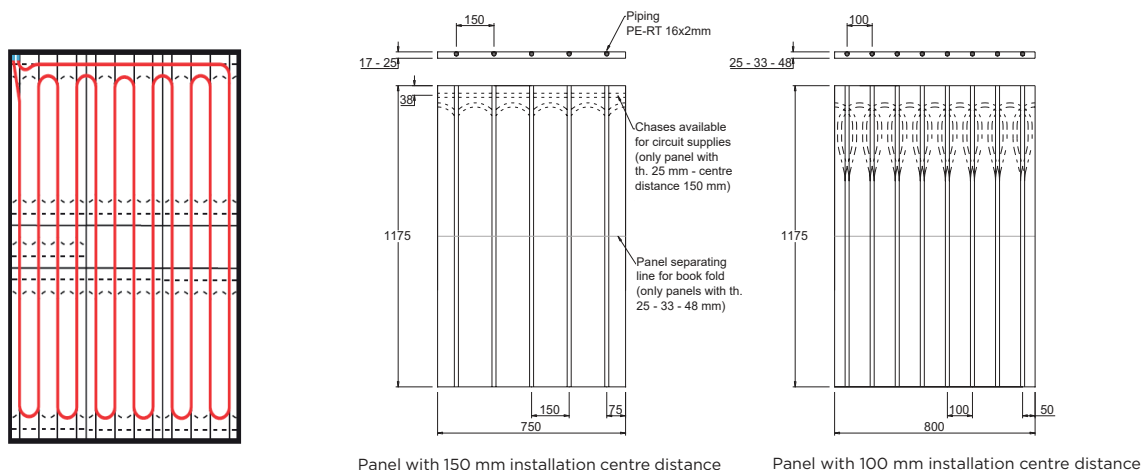
WARNINGS: Before installing the Kilma Futura system, it is necessary to provide a perfectly **flat, even** substrate.

* Refer to the laying instructions and directions provided in the Kilma Futura System user and installation manual.

DIMENSIONAL FEATURES

Centre distance of the milling process, EPS panel to allow housing the pipe	Pitch 150 mm (code 2926.XX.02) Pitch 100 mm (code 2926.XX.12)
Kilma Futura panel size	1175x750 mm - 0.88 m ² usable surf. (code 2926.XX.02) 1175x800 mm - 0.94 m ² usable surf. (code 2926.XX.12)
EPS insulating thickness	17 (installation pitch only 150)/25/33/48 mm

EXAMPLE OF COIL PIPE DEVELOPMENT AND MAIN DIMENSIONS



CONSTRUCTION FEATURES

Pre-shaped EPS 300 panel to implement floor radiant heating system, coupled on the surface with a smooth heat-conducting aluminium sheet, having interlocks to lay piping with 16 mm outer diameter.

TECHNICAL FEATURES OF THE INSULATING PANEL (EPS 300)

EPS Classification (according to UNI-EN 13163)	EPS 300	
Declared thermal conductivity	$\lambda_D = 0,033$	W / m K
Declared thermal resistance	R \approx 0.265 (th. 17) R \approx 0.587 (th. 25 - int. 150) / 0.533 (th. 25 - int.100) R \approx 0.780 (th. 33) R \approx 1.250 (th. 48)	m ² K / W m ² K / W m ² K / W m ² K / W
Compression resistant up to 10% compression	$\sigma_{10} \leq 300$ CS(10)	kPa
Reaction to fire	Euroclass "F"	

REGULATORY REFERENCES

UNI EN 13163:2012 - Thermal insulation products for buildings - Evaluation of conformity

MAIN COMPONENTS THAT CAN BE USED WITH THE KILMA FUTURA PANEL

Code	Description	
2517.16.XX		<u>Kilma HI-PERFORMANCE PLUS pipe</u> : 4-layer polyethylene pipe for underfloor heating (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.
1542.16.XX		<u>Tita-Fix multi-layer pipe</u> : PE-Xc/Al/PE-RT multi-layer pipe, 1542.16.xx series.
472.08.12		<u>Base edging joint</u> : expansion joint made of expanded polyethylene, coupled with LDPE mortar containment sheet, height 80 mm, with a thickness of 5 mm and supplied in 25 m rolls. FOR FLOOR LAYING ONLY.
472.15.12 475.25.12		<u>Base edging joint</u> : Expansion base edging joint, made of expanded polyethylene, coupled with LDPE mortar containment sheet. Optional tool for ceiling installation.
483.25.02 483.32.02		<u>Corrugated conduit</u> : (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.
603.18.12		<u>Bend former</u> for curves at 90°, made of polyamide with fibreglass. Used as a bend former and to provide pipe protection near manifold connection.
778.20.02		<u>Moisture barrier</u> made with a PE sheet, 0.2 mm thick. Roll supply, 200 m ²
2018.00.02		<u>Anodised aluminium adhesive tape</u> : Used to avoid the formation of heat bridges between two adjacent panels and to create a single insulating layer.
3702.00.02		<u>Kilma Futura Adhesive AD</u> : 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/m ² .
3055.00.12		<u>Epoxy PRIMER MF by Mapei</u> : 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 Kit consisting of one 3 Kg box of Primer + one 1 Kg box of Reagent. Average use 0.2 kg/m ² .

SPECIFICATIONS

SERIES 2926

Insulating RBM Kilma Futura panel, high mechanical resistance, made of EPS 300 type expanded synthetic polystyrene, closed cell stamped, overlaid with aluminium sheet, suitable for installing floor radiant heating systems with reduced thickness, without screed or allocator elements, with direct floor laying on the panel and characterised by very low thermal inertia. Equipped with parallel straight seats for piping Ø16x2mm with pre-set pitch and head curves pre-shaped in the panel. Any other seat and supplies can be easily made at the building site by the installer with an ordinary milling machine.

Declared thermal conductivity: 0.033 W/m K

Thermal resistance according to UNI-EN 1264

Denomination and classification in compliance with Directive 89/106 EC CS(10)300 Euroclass F

Panel pitch dimensions 150mm: 1175x750 mm (0.88 m² usable surf.)

Panel pitch dimensions 100mm: 1175x800 mm (0.94 m² usable surf.)

Available in the following versions:

Thickness 17 mm (pitch 150 mm)

Minimum thermal resistance guaranteed = 0.265 m²K/W

Thickness 25 mm (pitch 150 mm)

Minimum thermal resistance guaranteed = 0.587 m²K/W

Thickness 25 mm (pitch 100 mm)

Minimum thermal resistance guaranteed = 0.533 m²K/W

Thickness 33 mm (pitch 100 mm)

Minimum thermal resistance guaranteed = 0.780 m²K/W

Thickness 48 mm (pitch 100 mm)

RBM spa reserves the right to improve and change the products described and the relevant technical data at any moment without prior notice.

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