



Rev. 08/2024

## **PANEL KILMA-FUTURA**

High efficiency insulation panel for  
dry installations.

# KILMA-FUTURA PANEL

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



## PRODUCTION RANGE

Description	Code	Panel dimensions [mm]	Th. Insulation [mm]	Heat Res. m <sup>2</sup> K/W	No. of panels per pack	Usable surface covered by 1 package
Panel KILMA-FUTURA installation pitch <b>160 mm</b>	<b>3841.20.00</b>	1200x800x20	20	0.558	9	8,64
	<b>3841.25.00</b>	1200x800x25	25	0.709	7	6,72
	<b>3841.33.00</b>	1200x800x33	33	0.952	5	4,80
	<b>3841.48.00</b>	1200x800x48	48	1.406	10	9.60
Panel KILMA-FUTURA Installation pitch <b>100 mm</b>	<b>3841.20.10</b>	1200x800x20	20	0.528	9	8,64
	<b>3841.25.10</b>	1200x800x25	25	0.680	7	6,72
	<b>3841.33.10</b>	1200x800x33	33	0.922	5	4,80
	<b>3841.48.10</b>	1200x800x48	48	1.377	10	9.60

## DESCRIPTION

**Kilma Futura** is a revolutionary radiant panel 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.

**Quick installation and immediate walkability** are the special features of the Kilma Futura panel: when the Kilma Futura panel is laid on the floor, **the same work team can start, lay and finish the floor** without waiting for screed drying (there is no downtime) and **the floor can be walked on immediately**.

The panel is supplied already coupled with the upper layer of aluminium, with further reduction in installation time. 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 strength, **the panel enables setting the floor directly on it\***, without the need to provide load\* allocator elements (loads for residential buildings).

The use of the **Kilma Futura** panel with 16 mm diameter RBM **KILMA-HI PERFORMANCE PLUS** pipes, code 2517.16.X2 is prescribed: for complete order codes please refer to the dedicated data sheet.

### USE

The **Kilma Futura** panel is particularly suitable for renovation work and on mezzanines, and in all cases where there is a reduced height of the rooms, 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 mounted on the wall. In this case, the radiant panel must be placed against the wall and then covered with a plasterboard or gypsum fibre coating.

### LAYING THE PIPING

The panel has grooves in the EPS layer, designed for housing the **KILMA-HI PERFORMANCE PLUS** 16mm diameter pipe.

### 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);
- Minimum space required (**overall thickness min. 28 mm including flooring**);
- Very low thermal inertia of the system;
- Reduced weight;
- Versatility (allows laying ceramic or parquet finishing coatings directly on the panel\*).

### WARNINGS

Before laying the **Kilma Futura** panel, set up a perfectly **flat and even** substrate.

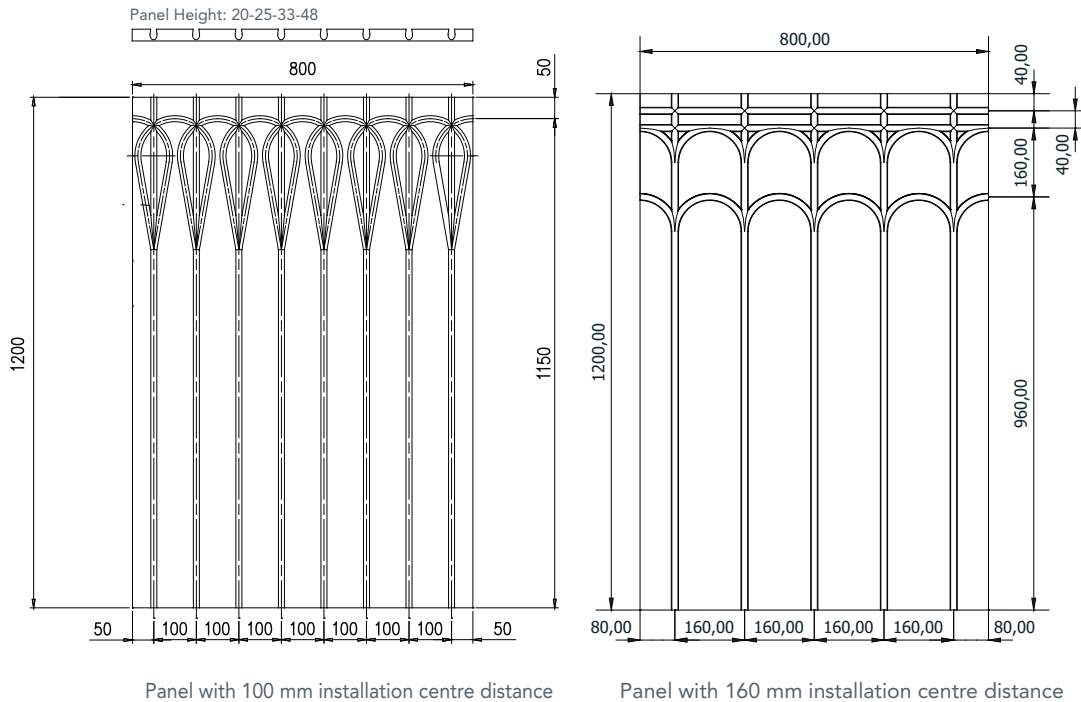
\* Refer to the installation instructions and warnings provided in the **Kilma Futura** Panel user and installation manual.



## DIMENSIONAL FEATURES

<b>Milling centre distance, EPS panel, to allow the pipe to be housed</b>	Pitch 160 mm (code 3841.XX.00) Pitch 100 mm (code 3841.XX.10)
<b>Kilma Futura panel size</b>	1200x800 mm - 0.96m <sup>2</sup> useful surface area (code 3841.XX.00) 1200x800 mm - 0.96m <sup>2</sup> useful surface area (code 3841.XX.10)
<b>EPS insulating thickness</b>	20/25/33/48 mm
<b>Pipe diameter applicable to the panel</b>	external Ø 16 mm

### Main dimensions



## CONSTRUCTION FEATURES

Pre-shaped EPS 300 panel for the realisation of floor radiant heating system, coupled on the surface with a smooth heat-sealing aluminium sheet, having fittings for the laying of piping with 16 mm outer diameter.

### TECHNICAL FEATURES OF THE INSULATING PANEL (EPS 300)

<b>EPS Classification (according to UNI-EN 13163)</b>	EPS 300	
<b>Declared thermal conductivity</b>	$\lambda_D = 0.033$ W / m K	
<b>Declared thermal resistance</b>	Pitch 100:	Pitch 160:
	R ≈ 0.528 (th 20)	R ≈ 0.558 (th 20)
	R ≈ 0.680 (th 25)	R ≈ 0.709 (th 25)
	R ≈ 0.922 (th 33)	R ≈ 0.952 (th 33)
	R ≈ 1.377 (th 48)	R ≈ 1.406 (th 48)
	R values according to standard UNI EN1264-3:2021	R values according to standard UNI EN1264-3:2021
<b>Compressive strength at 10% crushing</b>	$\sigma_{10} \leq 300$ CS(10)	kPa
<b>Reaction to fire</b>	Euroclass "F"	

## MAIN COMPONENTS THAT CAN BE USED WITH THE KILMA FUTURA PANEL

	Code	Description
	2517.16.XX	<b>Kilma HI-PERFORMANCE PLUS pipe:</b> 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, etc.). eVoH anti-oxygen barrier, co-extruded, DIN 4726.
	472.08.12	<b>Base edging joint:</b> 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.
	472.15.12 475.25.12	<b>Base edging joint:</b> expansion joint made of expanded polyethylene, coupled with LDPE sheet for mortar containment, 150 mm and 250 mm high, with a thickness of 5 mm and supplied in 60 m rolls.
	483.25.02 483.32.02	<b>Corrugated conduit:</b> (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	<b>Bend former</b> for curves at 90°, made of polyamide with fibreglass. Used as a bend former and to provide tube protection near manifold connection.
	778.20.02	<b>Moisture barrier</b> made with a PE sheet, 0.2 mm thick. Roll supply, 200 m <sup>2</sup>
	2018.00.02	<b>Anodised aluminium adhesive tape:</b> to prevent the formation of acoustic bridges between two adjacent panels and to create a single insulating layer.
	3702.00.02	<b>Kilma-Futura AD adhesive:</b> 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 can. Average use 0.10 ÷ 0.15 Kg/m <sup>2</sup> .
	3055.00.12	<b>Epoxy PRIMER MF by Mapei®:</b> used to waterproof and protect the aluminised surfaces of the panel and pipes 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 <sup>2</sup> .

## SPECIFICATIONS

### SERIES 3841

Insulating panel **RBM Kilma Futura**, high mechanical strength, made of EPS 300 type expanded synthetic polystyrene, closed cell stamped, overlaid with aluminium sheet, suitable for installing 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 pipes 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 m<sup>2</sup>K/W

Thermal resistance according to UNI-EN 1264.

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

Panel size 160 mm pitch: 1200x800 mm - 0.96 m<sup>2</sup> useful surface area (code 3841.XX.00)

Panel pitch dimensions 100mm: 1200x800 mm - 0.96 m<sup>2</sup> useful surface area (code 3841.XX.10)

#### Available in the following versions:

Pitch 100mm

Thickness:

20mm -> R=0.528

25mm -> R= 0.680

33mm -> R= 0.922

48mm -> R=1.377

Pitch 160mm

Thickness:

20mm -> R=0.558

25mm -> R= 0.709

33mm -> R= 0.952

48mm -> R=1.406

R values according to standard UNI EN 1264-3:2021

*RBM spa reserves the right to improve and change the products described and relevant technical data at any moment and without prior notice. The information and images contained in this document are intended for information purposes only, are not binding and in any case do not exempt the user from strictly following the regulations in force and good practice standards.*

#### RBM Spa

Via S. Giuseppe, 1 • 25075 Nave (Brescia) Italy

Tel 030 2537211 • Fax 030 2531798 • info@rbm.eu • www.rbm.eu

 @rbmspa  RBM S.p.A.  rbm\_spa\_  Rbm Italia