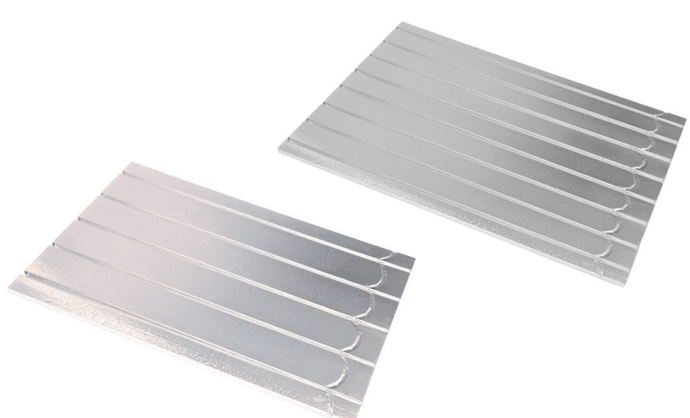


Rev. 06/2024

PANEL KILMA-FUTURA

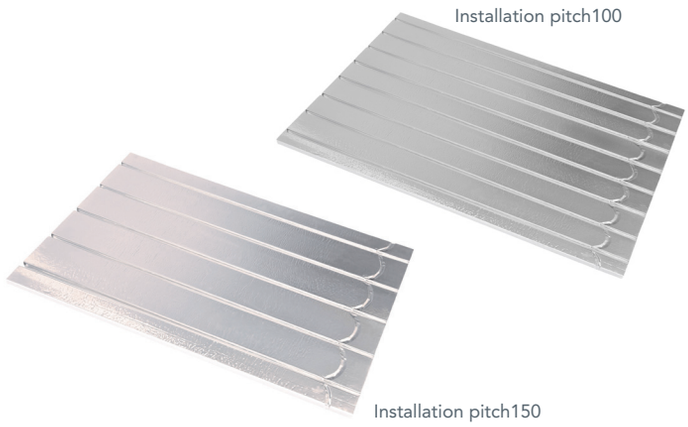
High efficiency insulation panel for dry installations.

Rev. 06/2024

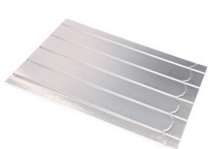
KILMA-FUTURA PANEL

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 3 cm
- 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. m² K/W	No. Panels per pack	Usable surface covered by 1 package
	Panel KILMA-FUTURA installation pitch **150 mm**	**2926.17.02**	1175x750x17	17	0.265	10	8.80 m²
		2926.25.02	1175x750x25	25	0.587	5	4.40 m²
	Panel KILMA-FUTURA Installation pitch **100 mm**	**2926.25.12**	1175x800x25	25	0.533	5	4.70 m²
		2926.33.12	1175x800x33	33	0.780	5	4.70 m²
		2926.48.12	1175x800x48	48	1.250	5	4.70 m²

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

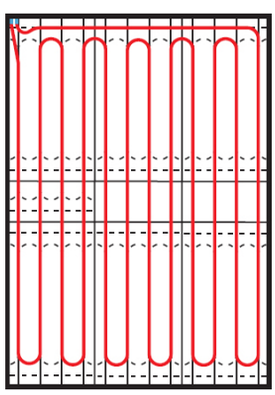
Before laying the **Kilma Futura** panel, set up a perfectly **flat and even** substrate.

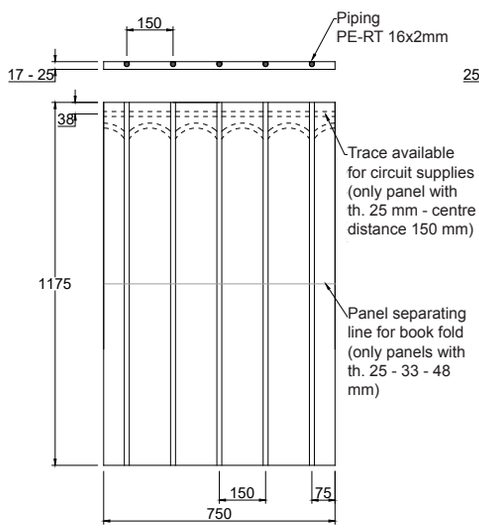
* Refer to the installation instructions and warnings provided in the **Kilma Futura** Panel user and installation manual.

DIMENSIONAL FEATURES

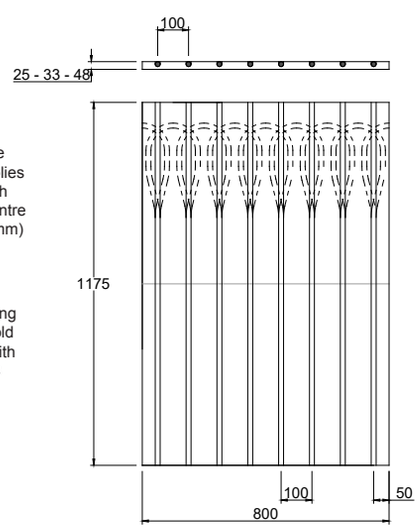
Milling centre distance, EPS panel, to allow the pipe to be housed	Pitch 150 mm (code 2926.XX.02) Pitch 100 mm (code 2926.XX.12)
Kilma Futura panel size	1175x750 mm - 0.88 m^2 usable surf. (code 2926.XX.02) 1175x800 mm - 0.94 m^2 usable surf. (code 2926.XX.12)
EPS insulating thickness	17/25/33/48 mm
Pipe diameter applicable to the panel	external Ø 16 mm

Example of coil pipe development and main dimensions





Panel with 150 mm installation centre distance



Panel with 100 mm installation centre distance

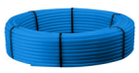
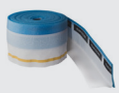
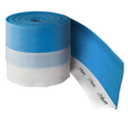
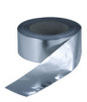
CONSTRUCTION FEATURES

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)

EPS Classification (according to UNI-EN 13163)	EPS 300	
Declared thermal conductivity	λ_D= 0.033	W / m K
Declared thermal resistance	R≈ 0.265 (th 17) R≈ 0.587 (th 25 - int. 150) / 0.533 (th. 25 - int.100) R≈ 0.780 (th. 33) R≈ 1.250 (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
Reaction to fire	Euroclass "F"	

MAIN COMPONENTS THAT CAN BE USED WITH THE KILMA FUTURA PANEL

	Code	Description
	**2517.16.XX**	**Kilma HI-PERFORMANCE PLUS pipe**: 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**	**Base edging 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.
	**472.15.12** **475.25.12**	**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.
	**483.25.02** **483.32.02**	**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.
	**603.18.12**	**Bend former** 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**	**Moisture barrier** made with a PE sheet, 0.2 mm thick. Roll supply, 200 m^2
	**2018.00.02**	**Anodised aluminium adhesive tape**: to prevent the formation of acoustic bridges between two adjacent panels and to create a single insulating layer.
	**3702.00.02**	**Kilma-Futura AD adhesive**: 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^2.
	**3055.00.12**	**Epoxy PRIMER MF by Mapei®**: 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^2.

SPECIFICATIONS

SERIES 2926

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^2K/W

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 m^2 usable surf.)

Panel pitch dimensions 100mm: 1175x800 mm (0.94 m^2 usable surf.)

Available in the following versions:

17 mm thickness (150 mm pitch) - Minimum guaranteed thermal resistance = 0.265 m^2K/W

25 mm thickness (150 mm pitch) - Minimum guaranteed thermal resistance = 0.587 m^2K/W

25 mm thickness (100 mm pitch) - Minimum guaranteed thermal resistance = 0.533 m^2K/W

33 mm thickness (100 mm pitch) - Minimum guaranteed thermal resistance = 0.780 m^2K/W

48 mm thickness (100 mm pitch) - Minimum guaranteed thermal resistance = 1.250 m^2K/W

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