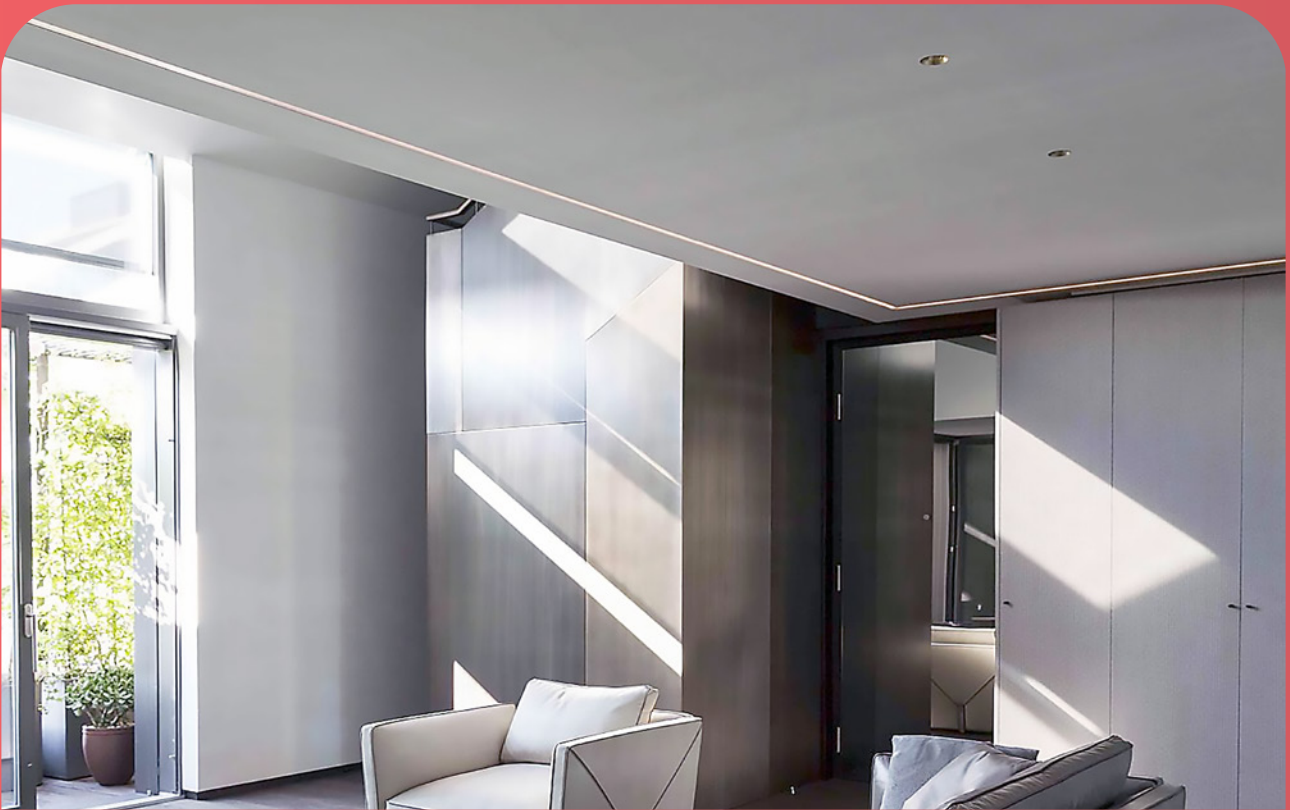




Radiant ceiling systems

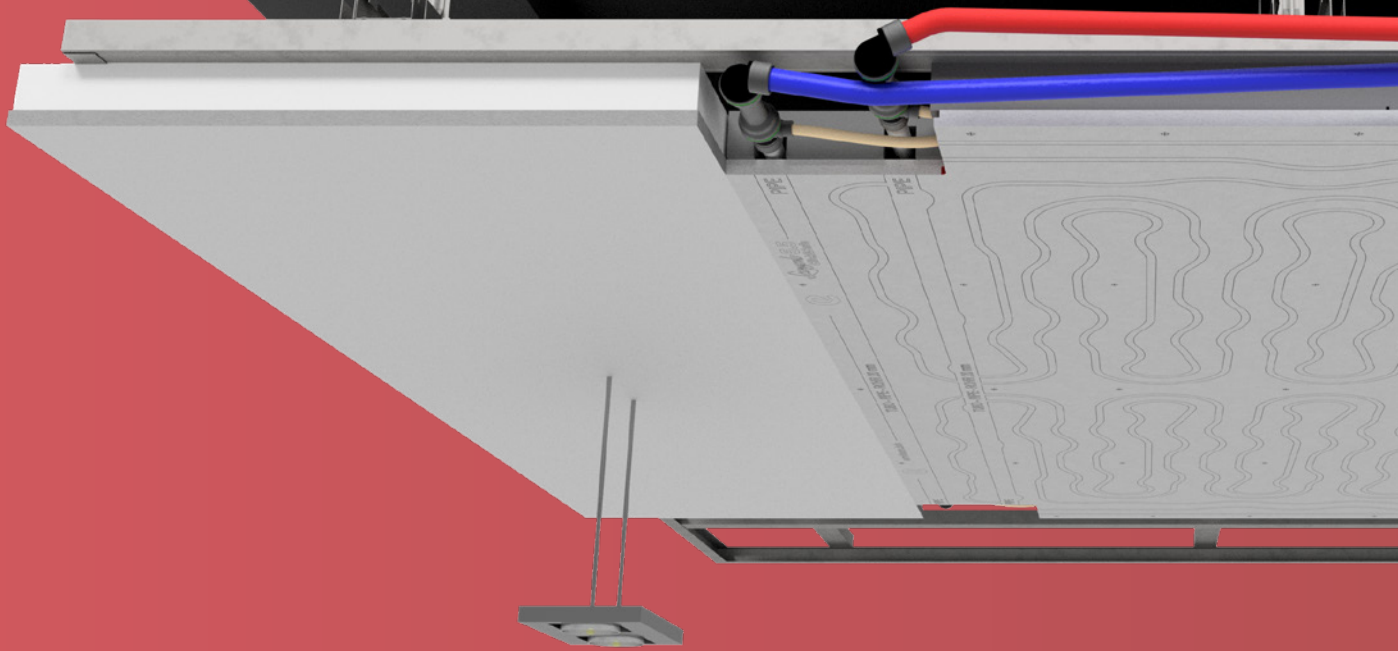
Ceiling systems create a uniform temperature in all rooms, perfectly tuned to your needs, providing a natural feeling of well-being in both winter and summer.



Climatic comfort **from above**

Radiant systems interact with the environment through the physical principle of radiation by releasing or absorbing energy, creating an ideal situation for heat exchange between people and surfaces. Thanks to radiant technology, the classic phenomenon of hot air going up and cold air going down as happens with air conditioners and radiators is eliminated.

Leonardo is the ceiling-mounted cooling and heating system completely developed and manufactured by Eurotherm – **100% made in Italy**. The special configuration succeeds in maximising performance and providing the highest level of comfort. In fact, the larger diameter of the pipe, compared to other ceiling systems, and its serpentine pattern allow for greater energy exchange, which increases its inertia rate and performance.



The revolutionary **Leonardo** **Click&Safe** ceiling system



It becomes a full-fledged ceiling

The Leonardo system assembles like a traditional plasterboard ceiling.



Easy to install in any condition

Whether new construction or renovation, the Leonardo system can be installed quickly.



Certain costs and complete turnkey service

Certain and precise costs with installation by Eurotherm specialists with turnkey service.



Design flexibility and reduced masonry work

The system suits every project and adapts to any type of surface and environment.



Fast commissioning

The system reaches the set temperature within minutes, reducing waste and energy expenditure.

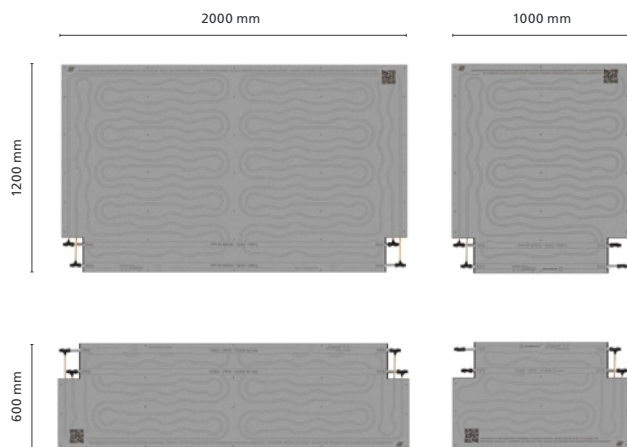


Simple plant housing

It blends into the environment and perfectly incorporates recessed lighting, air treatment vents, etc.

The new **Leonardo Click&Safe** ceiling panel

The Leonardo Click&Safe system allows for a ceiling radiant system for multiple applications. This system is composed of modular plasterboard panels with MidiX Plus piping already inserted and arranged in a serpentine pattern so as to maximise the exchange surface between piping and plasterboard. The plasterboard panel is supplied coupled with an insulating board to ensure high thermal performance.



Modularity

The new system introduces a completely new and more efficient approach compared to the previous model. One of the main innovations is the availability of modular panels in a range of standardised sizes, which eliminates the need to cut panels during installation. This means that professionals can directly choose the most suitable format for specific project requirements, significantly reducing processing time and improving the accuracy of the end result. If required, panels with dimensions 1200 x 2000 mm and 600 x 2000 mm can be split in half.

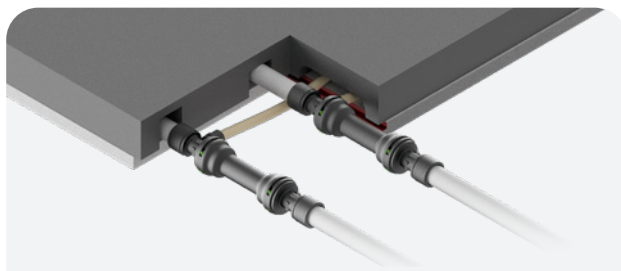
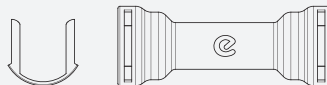
New Click&Safe fitting

Pre-assembled compression fittings on the pipework to guarantee maximum tightness over time, with double seals on the connectors between one panel and the other closing on the fitting.

CONNECT 10 m² IN LESS THAN 10 MINUTES

NO EQUIPMENT REQUIRED

VISUAL SAFETY THANKS TO THE CLIP



Pre-installed hydraulic backbone

The hydraulic backbone already integrated within the panel, designed to facilitate the series connection of the panels, greatly simplifies installation operations on site.

Digital instructions

Each Leonardo panel comes with a QR code that allows access to technical manuals, instruction videos and other resources directly from your smartphone, making installation and maintenance quicker and easier.



The exploded view shows the main components of the Leonardo system, highlighting the integrated hydraulic backbone, the Click&Safe fittings, laser marking and MidiX Plus pipework, all designed to ensure a safe, durable and efficient installation.

Safety and durability

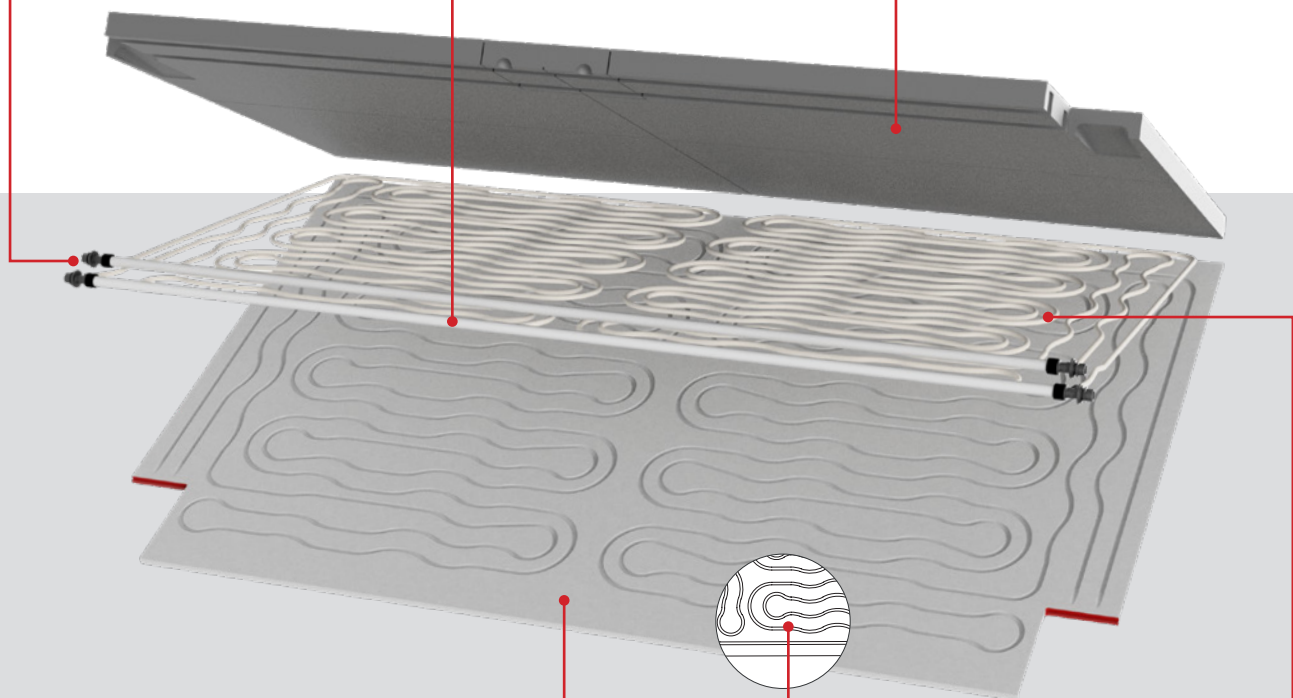
Compression fittings pre-assembled on the pipe to ensure maximum tightness over time, with double gasketed fittings (Click&Safe) between the panels that close on the calibrated fitting and not on the pipe. Fittings tested at different temperature and pressure cycles in a certified laboratory.

Hydraulic backbone

The panel is complete with hydraulic piping for connecting the panels in series. The pipework is made of multilayer PE-RT Type II 20 x 2 mm. The special fitting certified with in-line leak test is pre-assembled.

Always isolated system

The insulation board is increased in accordance with the requirements of the UNI EN 1264:2021 allowing thermal losses to be limited, increasing the performance of the entire system.



Plasterboard for every room

Depending on the installation context, either "standard" or hydro panels can be used for wet rooms such as bathrooms and kitchens. A ceiling system with sound-absorbing panels can be installed in rooms that require it (e.g. offices, meeting rooms, etc.).

Laser tracing

Laser marking clearly indicates the presence of the pipe, preventing accidental drilling during installation.

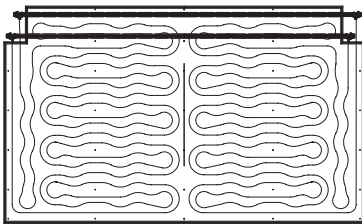
MidiX Plus pipe 10 x 1.3 mm

The Leonardo Click&Safe system incorporates a 10 x 1.3 mm diameter pipe. With its +25% diameter, the Leonardo Click&Safe system is significantly more efficient*.

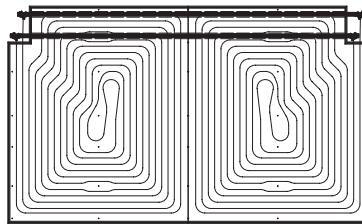
** compared to traditional systems that adopt 8 x 1.1 mm pipes*

The advantage of **differentiated spacing**

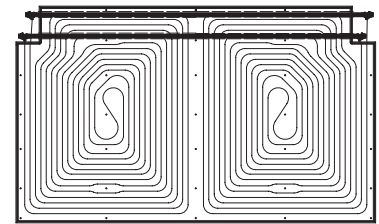
The Leonardo Click&Safe system offers the advantage of three different spacings, designed to guarantee versatility in design and installation, combined with two specific types of insulation, designed to optimise the system's performance according to environmental requirements, guaranteeing flexibility and high quality results in any application context. It is also available in special versions for specific technical requirements: Leonardo HYDRO for humid environments and Leonardo RF SPECIAL with high-density fibreglass for enhanced fire performance (on request). This complete range makes the system a flexible and efficient solution for any application context.



Pipe spacing 5.5



Pipe spacing 3.5



Pipe spacing 3.0

Optimised performance for every season

The tables compare the performance of Leonardo Click&Safe 5.5 and Leonardo Click&Safe 3.0 PLUS in winter and summer conditions, highlighting the differences in heat output and surface temperature. Leonardo Click&Safe 5.5 is more suitable for those looking for a more even surface temperature and a more immediate sensation of warmth, while Leonardo Click&Safe 3.0 PLUS is the better choice for those looking for greater energy efficiency and heat output.

The choice of the ideal system will therefore depend on the specific requirements of the environment and operating conditions.

🔥 Winter conditions

Room T	20 °C
Flow T	37 °C
ΔTm-r	4 °C
Δθ	15 °C

Heating performance

Leonardo Click&Safe 5.5	Leonardo Click&Safe 3.0 <small>PLUS</small>
59.8 W/m ²	79.6 W/m ²
Surface temperature*	
32.2 °C	29.2 °C

*UNI EN 1264-3:2021 – Surface temperature limit of 33 °C

❄️ Summer conditions

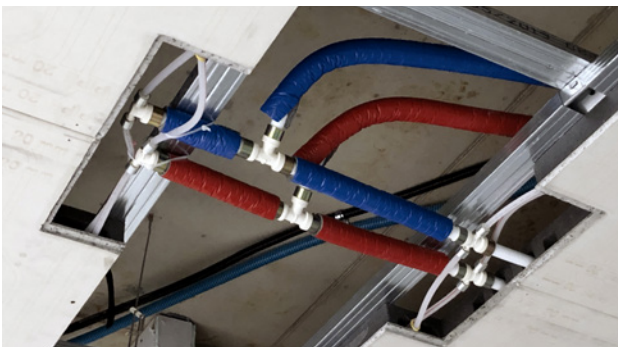
Room T	26 °C
Flow T	15 °C
ΔTm-r	2 °C
Δθ	10 °C

Cooling performance

Leonardo Click&Safe 5.5	Leonardo Click&Safe 3.0 <small>PLUS</small>
47.4 W/m ²	79 W/m ²

Simplicity of installation

The Leonardo Click&Safe radiant ceiling is easy to install thanks to innovative technical solutions. The laser marking on the panels guarantees precise positioning and reduces the risk of errors, while the pre-integrated, pre-expanded pipes simplify plumbing connections. Designed to reduce installation time and improve the quality of the final result, this system represents an evolution from traditional methods. Two dedicated installation kits are available: one complete with clamps and drills and one with drills only. Please refer to the Leonardo 2024 installation manual for further details.

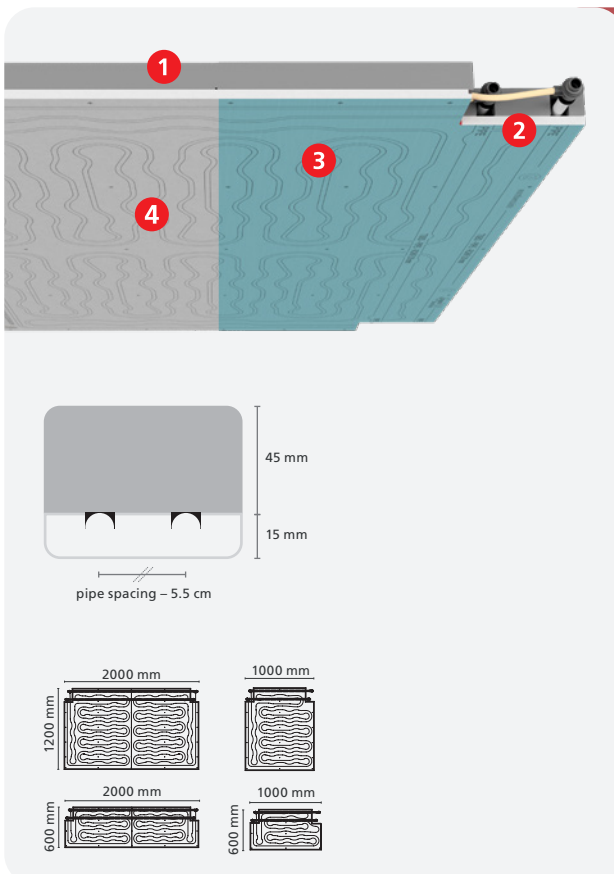


Installation method before



Installation method with Click&Safe

Our panel range

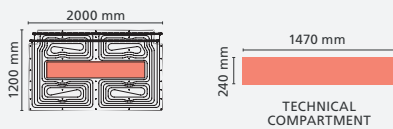
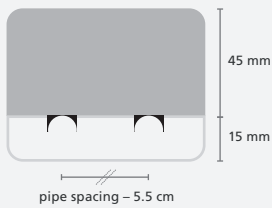
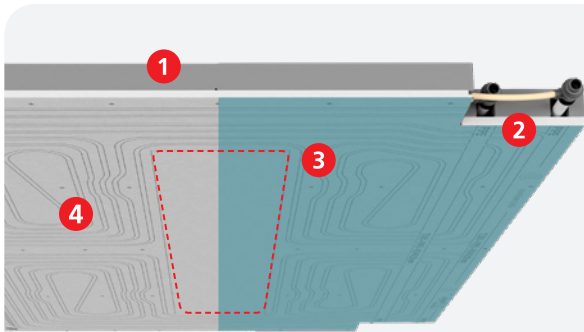


Leonardo Click&Safe 5.5 | 5.5 HYDRO

1. Sintered EPS insulation sheet with graphite.
2. 5-layer MidiX Plus pipe with integrated C&S fittings.
3. Plasterboard / hydro plasterboard.
4. Laser-etched pipe marking.

Material	EPS graphite + plasterboard / hydro plasterboard
λ_p	0.031 W/mK (EPS)
Thickness	60 mm (45 + 15)
Weight*	~13.5 kg/m ² (1200 x 2000) / ~13.8 kg/m ² (600 x 2000) ~13.3 kg/m ² (1200 x 1000, 600 x 1000)
Hydro weight*	~14.2 kg/m ² (1200 x 2000) / ~13.9 kg/m ² (1200 x 1000) / ~14.4 kg/m ² (600 x 2000)
Pipe	10 x 1.3 mm
Pipe spacing	5.5 cm
Power	<ul style="list-style-type: none"> ● PH: 76.9 W/m² Water inlet 40° C, $\Delta\theta = 2K$ ● PC: 47.7 W/m² Water inlet 15° C, $\Delta\theta = 2K$

* specific weight of the slab with water inside the pipe

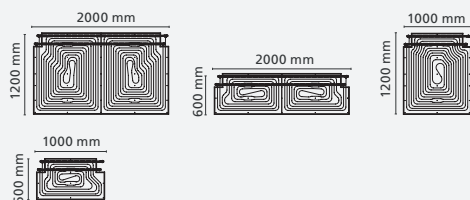
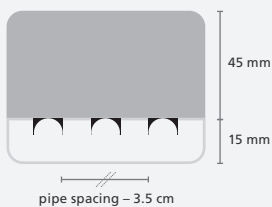
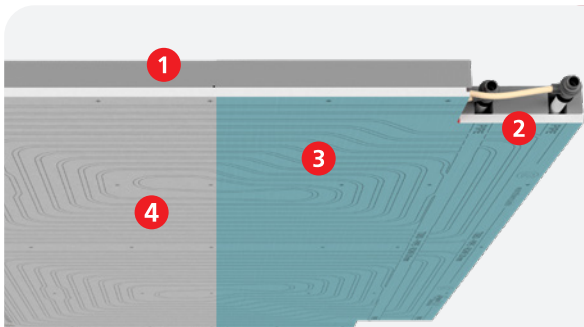


Leonardo Click&Safe Lux | Lux HYDRO

1. Sintered EPS insulation sheet with graphite.
2. 5-layer MidiX Plus pipe with integrated C&S fittings.
3. Plasterboard / hydro plasterboard.
4. Laser-etched pipe marking.

Material	EPS sintered with graphite
λ_D	0.031 W/mK (EPS)
Thickness	60 mm (45 + 15)
Weight*	~13.5 kg/m ² (1200 x 2000 mm)
Hydro weight*	~14.1 kg/m ² (1200 x 2000 mm)
Pipe	10 x 1.3 mm
Pipe spacing	5.5 cm
Power	<ul style="list-style-type: none"> ● PH: 76.9 W/m² Water inlet 40° C, $\Delta\theta = 2K$ ● PC: 47.7 W/m² Water inlet 15° C, $\Delta\theta = 2K$

*specific weight of the panel with water in the pipes

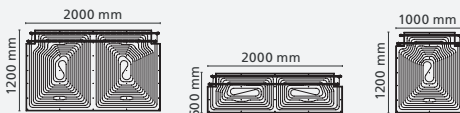
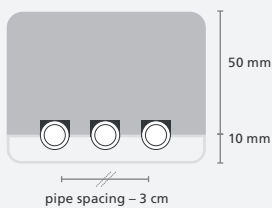
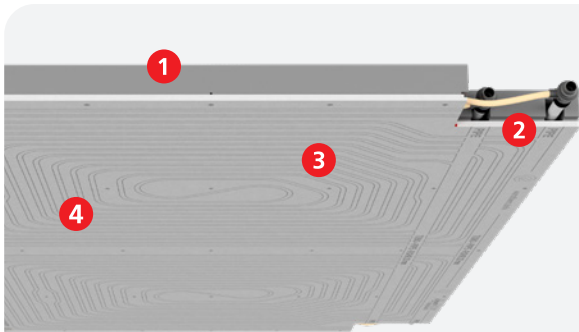


Leonardo Click&Safe 3.5 | 3.5 HYDRO

1. Sintered EPS insulation sheet with graphite.
2. 5-layer MidiX Plus pipe with integrated C&S fittings.
3. Plasterboard / hydro plasterboard.
4. Laser-etched pipe marking.

Material	EPS sintered with graphite
λ_D	0.031 W/mK (EPS)
Thickness	60 mm (45 + 15)
Weight*	~13.6 kg/m ² (1200 x 2000) / ~13.8 kg/m ² (600 x 2000) / ~13.3 kg/m ² (1200 x 1000, 600 x 1000)
Hydro weight*	~14.1 kg/m ² (1200 x 2000) / ~14.4 kg/m ² (600 x 2000) / ~13.9 kg/m ² (1200 x 1000, 600 x 1000)
Pipe	10 x 1.3 mm
Pipe spacing	3.5 cm
Power	<ul style="list-style-type: none"> ● PH: 86.8 W/m² Water inlet 39° C, $\Delta\theta = 2K$ ● PC: 61.6 W/m² Water inlet 15° C, $\Delta\theta = 2K$

*specific weight of the panel with water in the pipes

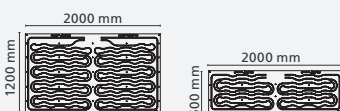
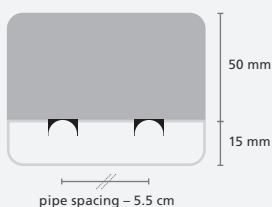
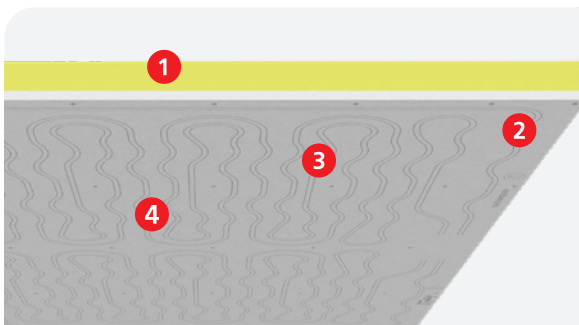


Leonardo Click&Safe 3.0 PLUS

1. Sintered EPS insulation sheet with graphite.
2. 5-layer MidiX Plus pipe with integrated C&S fittings.
3. Plasterboard panel with Activ'Air® technology.
4. Laser-etched pipe marking.

Material	EPS sintered with graphite
λ_D	0.031 W/mK (EPS)
Thickness	60 mm (50 + 10)
Weight*	~11.7 kg/m ² (1200 x 2000, 1200 x 1000) ~12 kg/m ² (600 x 2000)
Pipe	10 x 1.3 mm
Pipe spacing	3 cm
Power	<ul style="list-style-type: none"> ● PH: 84.9 W/m² Water inlet 37° C, $\Delta\theta = 2K$ ● PC: 79 W/m² Water inlet 15° C, $\Delta\theta = 2K$

*specific weight of the panel with water in the pipes



Leonardo RF SPECIAL

Classic system panel (not Click&Safe), available on request.

1. High-density fibreglass sheet.
2. 5-layer MidiX Plus pipe.
3. Fibreglass + plasterboard
4. Laser-etched pipe marking.

Material	Fibreglass + plasterboard
λ_D	0.037 W/mK (insulation)
Thickness	65 mm (50 + 15)
Weight*	~16.1 kg/m ² (1200 x 2000 mm) ~16.2 kg/m ² (600 x 2000 mm)
Pipe	10 x 1.3 mm
Pipe spacing	5.5 cm
Power	<ul style="list-style-type: none"> ● PH: 76.9 W/m² Water inlet 40° C, $\Delta\theta = 2K$ ● PC: 47.7 W/m² Water inlet 15° C, $\Delta\theta = 2K$

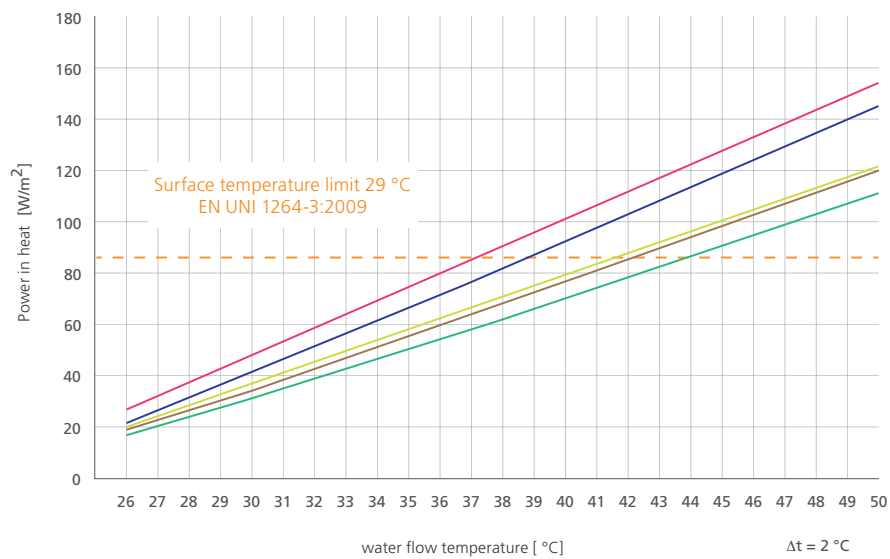
*specific weight of the panel with water in the pipes

Ceiling system performance certificates



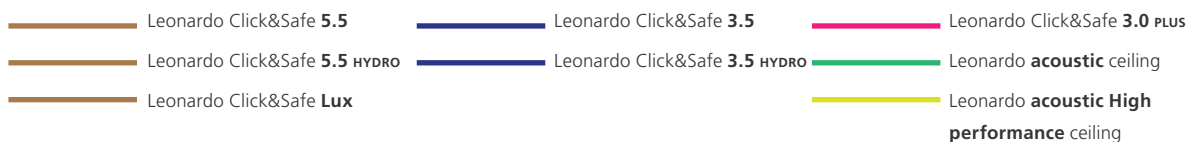
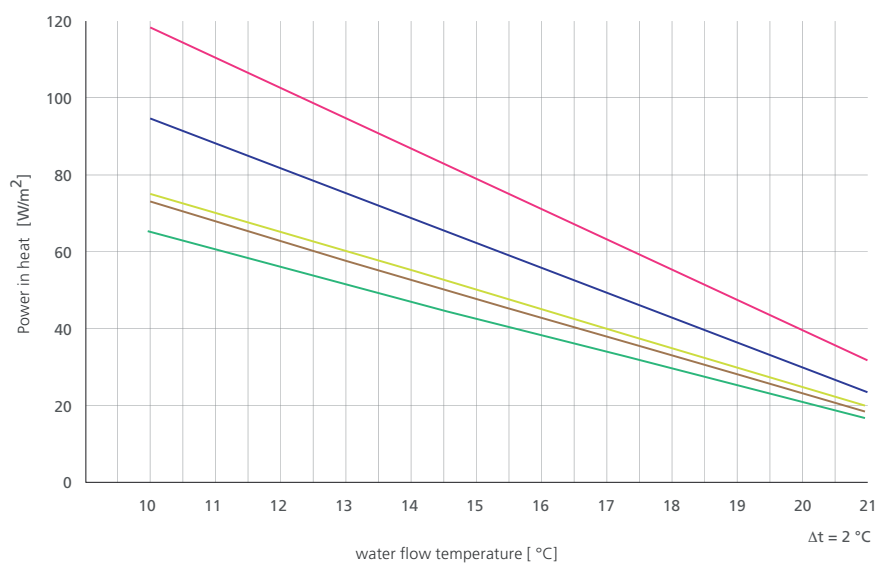
Heating

Curves from performance certificates according to EN 14037-5:2016 in heating mode



Cooling

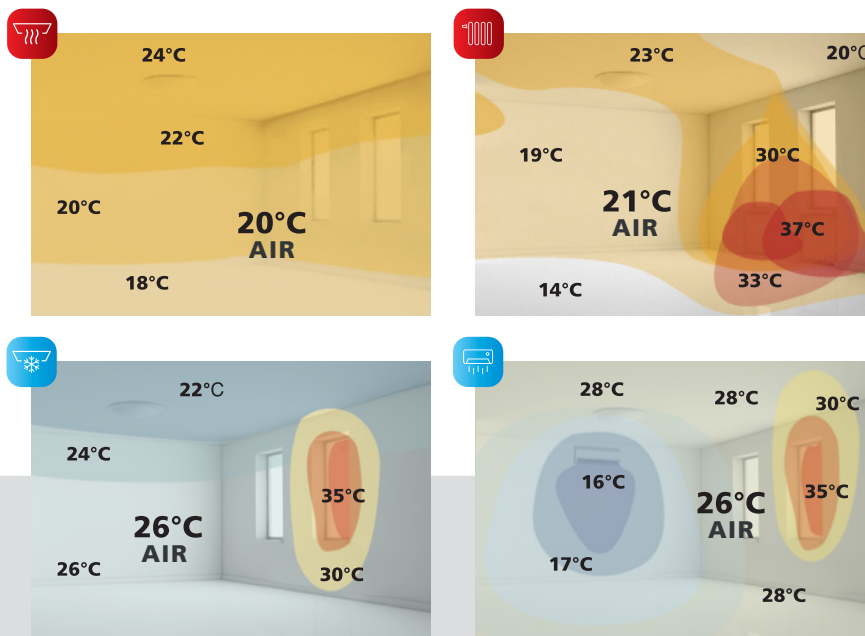
Curves from performance certificates according to EN 14240:2005 in cooling mode



The **natural** climate

The radiant ceiling heating system transmits heat by radiation. Unlike a radiator, which heats the surrounding air by directing it upwards and generating convective motion, radiant ceiling heating creates a uniform zone of comfort without causing air movement.

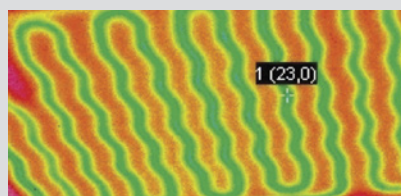
In cold air systems with split or fancoils, air movement is generated that creates stratification and often discomfort to people if the machines are not correctly positioned. The radiant ceiling system cools all the surfaces of the room evenly by discharging energy from the mass and creating the right heat exchange with the people in the room.



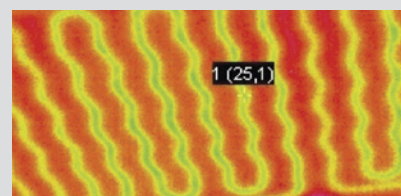
Low thermal inertia

The diameter and thickness of the pipe used (MidX Plus 10 x 1.3 mm), the pipe integrated into the plasterboard and its particular serpentine geometry make Leonardo Click&Safe a ceiling system with a high yield that gives the system a reduced thermal inertia. Below are thermographic photographs of the Leonardo Click&Safe system in its start-up in cooling mode with an average water temperature of 18 °C. Note how after just 20 minutes the system has already reached full operation.

after **5 minutes** from start-up



after **20 minutes** after start-up

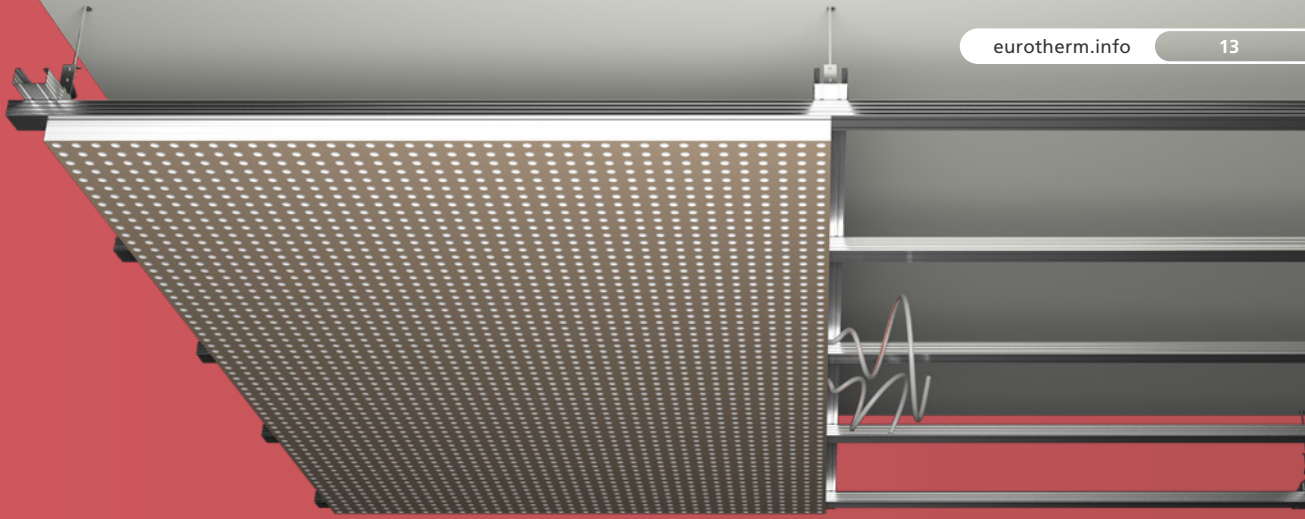




Thermal and acoustic comfort in a single solution

The acoustic ceiling is the ideal radiant system to be installed in all environments that require a high degree of thermal and acoustic comfort, such as: offices, meeting rooms, auditoriums, shops, etc.

The bagged glass wool guarantees excellent insulation, while the pipework with a diameter of 10 x 1.3 mm allows for a greater exchange of energy that increases inertia and performance. Thanks to the double acoustic plasterboard sheet, this system combines the benefits of the climatic comfort of a radiant ceiling system with the high sound-absorbing power that eliminates all those annoying environmental reverberation phenomena.



Radiant comfort is also **sound-absorbing**



Double laminated acoustic sheet

The system is silent and invisible, plus the double panel is very effective in reducing footfall noise.



High performance in every season

The system designed for year-round comfort according to climatic conditions.



Reduction of air pollutants

The presence of zeolite in gypsum plasterboards promotes the absorption of pollutants.



Fast commissioning

The system reaches the set temperature within minutes, reducing waste and energy expenditure.



High sound absorbing power

The system ensures acoustic comfort. You can say goodbye to environmental reverberation phenomena.

The **Acoustic** radiant panel

The acoustic ceiling system, thanks to the double acoustic sheet made of perforated plasterboard and acoustic felt, combines the benefits of radiant comfort with a high sound-absorbing power that eliminates all annoying environmental reverberation.

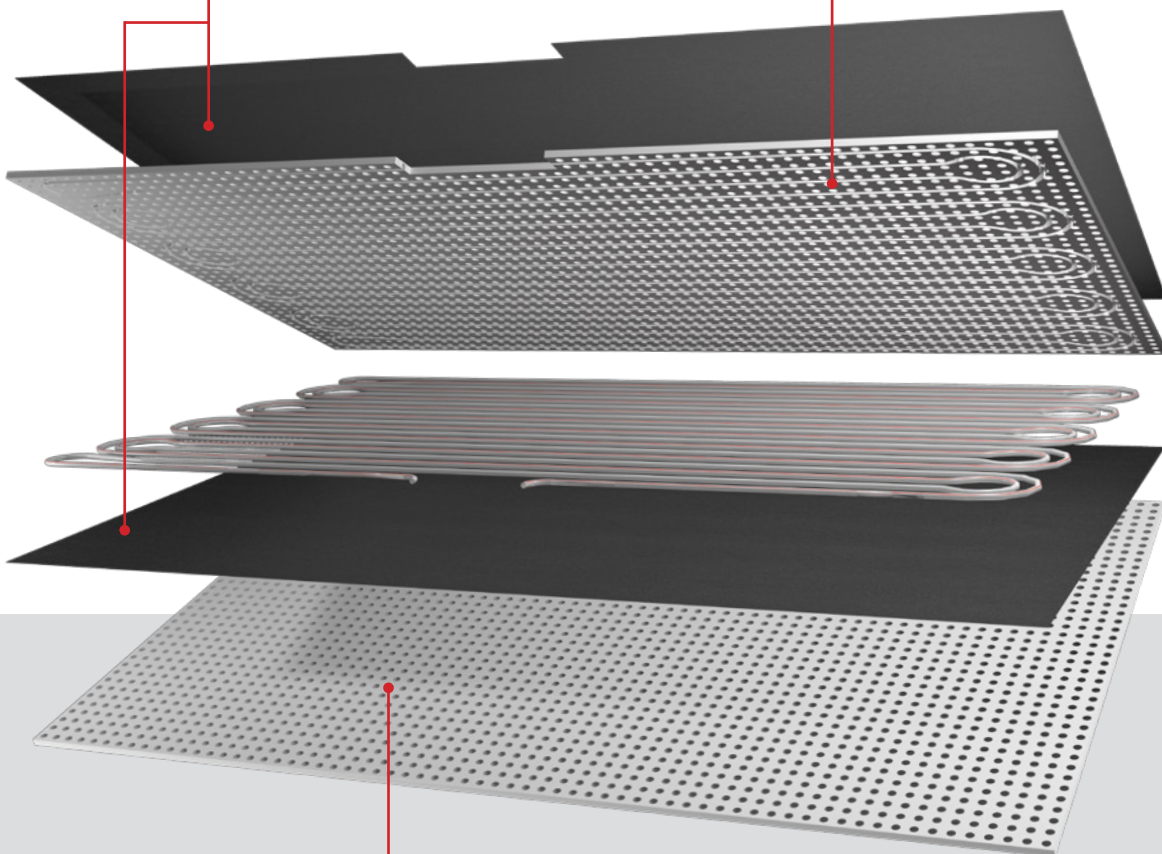
The composition of the panel, made of gypsum and zeolite, also contributes to reducing indoor air pollutant concentrations. The MidiX Plus pipe is arranged in a coil in the thickness of the upper panel. It is ideal for both winter heating and summer cooling.

Acoustic felt

Felt is a sound-absorbing material, which, thanks to its fairly soft structure, does not reflect sound waves, thus reducing reverberation.

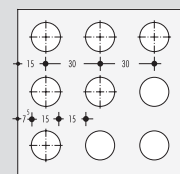
Acoustic plasterboard sheet

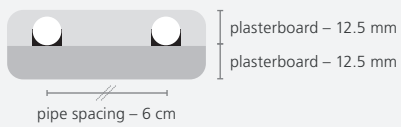
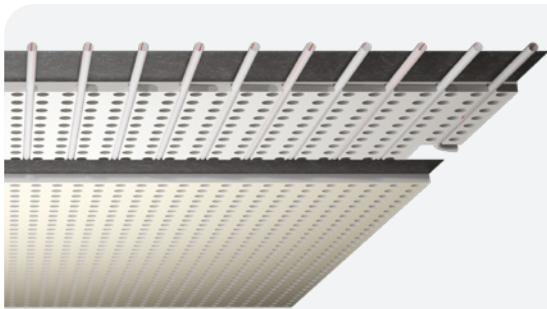
The panel consists of a core of gypsum and zeolite. Zeolite is a natural rock with a honeycomb-like crystalline structure, characterised by a huge number of pores of varying sizes.



The structure

Its special cage-like structure allows it to capture odours in quantities of 65% of its weight and to develop a positive action on indoor air quality, reducing the concentration of pollutants in rooms with poor ventilation (cigarette smoke, cooking smell, benzene, aromatic hydrocarbons, etc.).





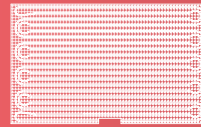
Leonardo Acoustic

COMPOSITION: fibreglass +
acoustic plasterboard

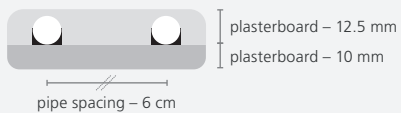
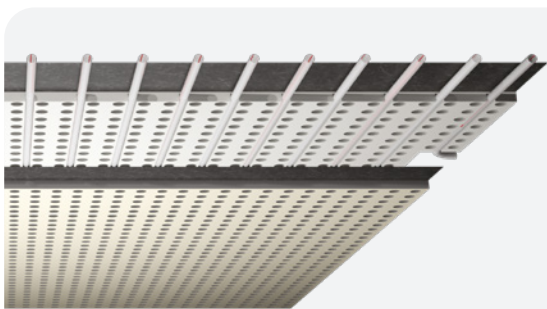
PIPE: MidiX Plus 10 x 1.3 mm

PIPE SPACING: 6 cm

● PH: 71.1 W/m² ● PC: 42.7 W/m²



1200 x 1980 x 25 mm



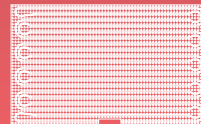
Leonardo Acoustic High Performance

COMPOSITION: fibreglass +
acoustic plasterboard with graphite

PIPE: MidiX Plus 10 x 1.3 mm

PIPE SPACING: 6 cm

● PH: 80 W/m² ● PC: 50 W/m²



1200 x 1980 x 25 mm

Acoustic performance

Determination of sound absorption coefficient in reverberation chamber according to UNI EN ISO 354 and UNI EN ISO 11654 at the University of Padova (Industrial Engineering Department).

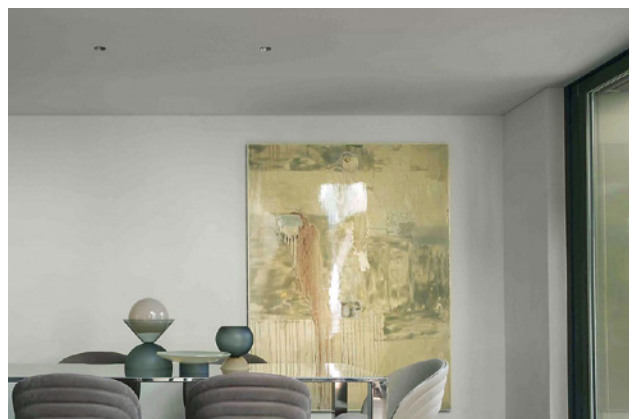
a – Eurotherm Acoustic Ceiling*
b – Single panel**

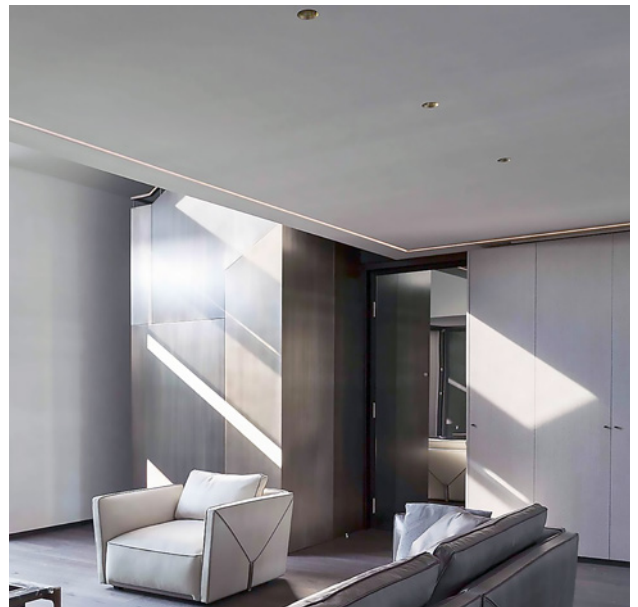
* radiant ceiling made from two 12.5 mm plasterboard sheets each with 15 mm diameter circular perforation with 30 mm centre distance with pipework inserted. Glass fibre bagged cavity, 50 mm thick, density 14 kg/m³ laid on the back of the panel and air 225 mm

** plasterboard sheet with circular perforation 15/30 thickness 12.5 mm. Packed glass fibre cavity, thickness 50 mm, density 14 kg/m³ laid on the back of the panel and air 225 mm

Sound absorption class – D







The SAPP® system

The metal ceiling SAPP® (Smart Acoustic Passive Power) is the solution for those who seek the highest standards of sustainability and eco-friendliness, but accept no compromise on acoustic and thermal comfort. The metal ceiling SAPP® lends itself to any creative architectural solution, thanks to its unique and harmonious open structure.

**HIGH DESIGN
AESTHETICS**

**LOW ENERGY
CONSUMPTION**

**HIGH EFFICIENCY
ALL YEAR ROUND**

**OPTIMAL ACOUSTIC
PERFORMANCE**



Architect' Studio: Roberto Nicoletti Architettura & Design – Photo credits: Marco Zanta



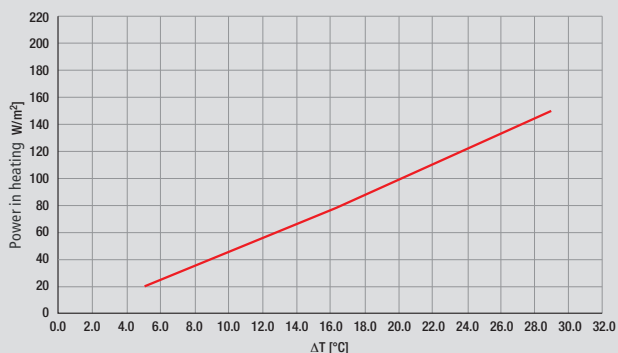
The ceiling system works with heat pumps, geothermal and other environmentally friendly sources that significantly reduce both energy waste and environmentally harmful emissions. Only steel was used in its construction, thus avoiding energy-consuming and polluting processes.

Heating performance



WINTER

Curves from yield certificates according to UNI EN 14037-5:2016 in heating.



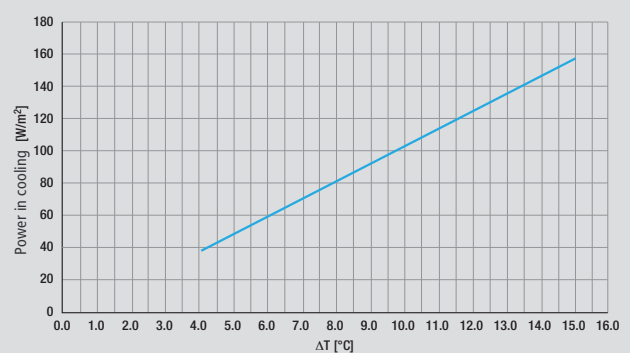
ΔT between mean water temperature and reference room temperature = 15 K **71 W/m²** (in accordance with EN14037)

Cooling performance



SUMMER

Curves from yield certificates according to UNI EN 14037-5:2016 in cooling.



ΔT between reference ambient temperature and average water temperature = 10 K **103 W/m²** (in accordance with EN14240)

The **EASY-KLIMA**[®] system

Easy installation and maintenance-free operation make EASY-KLIMA[®] the versatile and adaptable ceiling that contributes to an extremely comfortable room climate and acoustics. The numbers speak for themselves: more than one million square metres of metal ceiling already installed.

LOW INSTALLATION HEIGHT

OPTIMAL ACOUSTIC PERFORMANCE

SUITABLE FOR RENOVATIONS

FLEXIBLE FOR COMMERCIAL APPLICATION



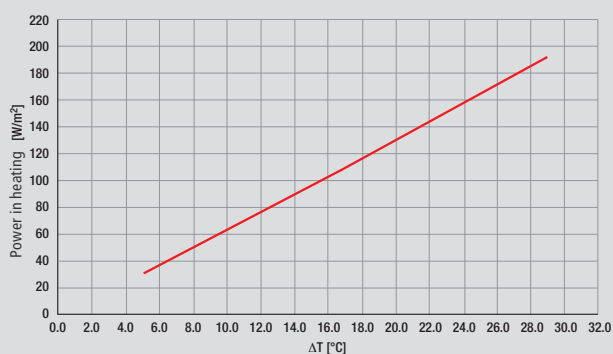
The ceiling system works with heat pumps, geothermal and other environmentally friendly sources that significantly reduce both energy waste and environmentally harmful emissions. Only steel was used in its construction, thus avoiding energy-consuming and polluting processes.

Heating performance



WINTER

Curves from yield certificates according to UNI EN 14037-5:2016 in heating.



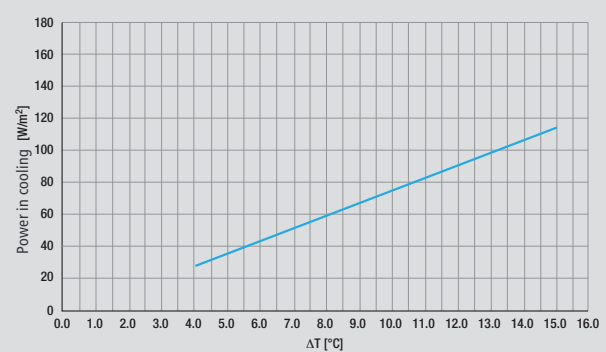
ΔT between mean water temperature and reference room temperature = 15K **96 W/m²** (in accordance with EN14037)

Cooling performance



SUMMER

Curves from yield certificates according to UNI EN 14240:2005 in cooling.



ΔT between reference ambient temperature and average water temperature = 10 K **74 W/m²** (according to EN14240)



More quality for the indoor **climate**.
 More value for **well-being**.

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