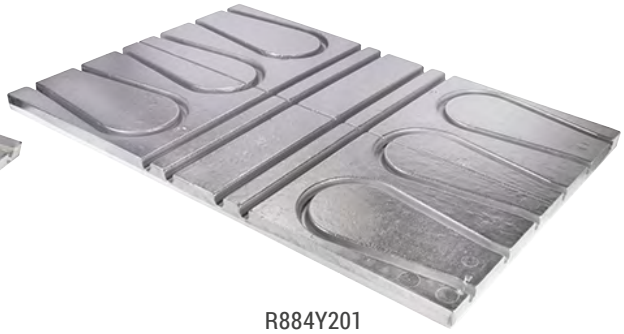
KLIMA DRY

“Dry” radiant floor system

Radiant Systems

Datasheet
1199EN 05/2026

R883Y201



R884Y201

R883Y202

KLIMA DRY is a dry radiant system (screed free) designed for floor heating systems featuring extremely small dimensions and rapid installation.
The combination of the panel, pipes and coating provides a finished system lower than 3 cm.
What makes this system special is that the flooring can be laid directly on top of the radiant panel without the need to wait for drying of the surface as the system is screed free. This allows to install the system and finish the flooring in one single step and walk on the surface right away.
KLIMA DRY panels are provided with an aluminum heat-conductor layer enhancing heat diffusion upwards. Unlike many dry systems, it integrates a lower insulation layer that limits heat dispersions downwards.
Its enhanced mechanical resistance enables to lay the tile or parquet flooring without additional elements to distribute the load.

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italia
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com

Benefits

KLIMA DRY stands out for its rapid ramping-up times as it requires no concrete screed and features reduced thermal inertia. The even distribution of heat, guaranteed by the aluminum heat conductor film, provides homogeneous radiation over the surface.
Thanks to its very reduced height and total weight, KLIMA DRY is particularly fit for renovations and existing buildings.

Product codes and versions

SERIES	PRODUCT CODE	DESCRIPTION	DIMENSIONS [mm] T=spacing - h=height	Ø PE-RT PIPE R978 [mm]	N° SHEETS PER PACK	TOT USEFUL SURFACE [m²]
R883-2	R883Y201	Insulation panel with linear grooves for 100-mm pipe spacing. For use with R884Y201 head panels	1200 x 600 mm T100 - h25	16	13	9,36
	R883Y202	Insulation panel with linear grooves for 150-mm pipe spacing and head bends pre-shaped in the panel	1200 x 750 mm T150 - h25	16÷17	15	13,5
R884-2	R884Y201	Head insulation panel with pre-shaped bends for use with R883Y201 panels.	900 x 600 mm T100 - h25	16	14	7,56

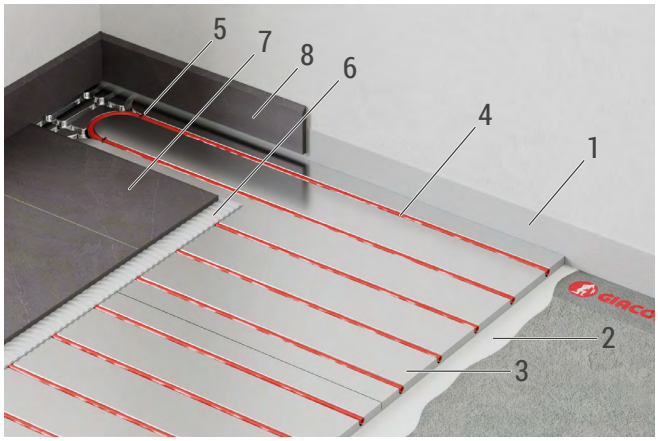
Technical data

- Panel material: EPS 500
- Thermal conductivity (EN 12667): 0,033 W/m K
- Minimum compression resistance at 10% crushing (EN 826): 500 kPa
- Thermal resistance (EN 12667 or EN 12939):
  - R883Y201: 0,68 (m^2K)/W
  - R883Y202: 0,70 (m^2K)/W
  - R884Y201: 0,67 (m^2K)/W
- Long-term water absorption (EN 12087): < 2,5%
- Dimensional stability under normal and steady lab conditions (EN 1603): ± 0,2%
- Dimensional stability under specific humidity and temperature conditions (EN 1604): ± 1,0%
- Fire reaction (EN 13501-1) Euroclass: E
- Aluminum coating film (R883Y201, R883Y202): 0,2 mm
- Aluminized PS coating film (R884Y201): 0,16 mm

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italia
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com

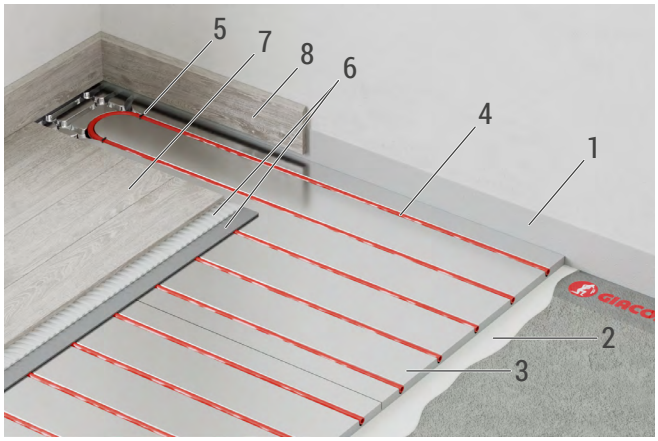
System components

System with glued ceramic coating



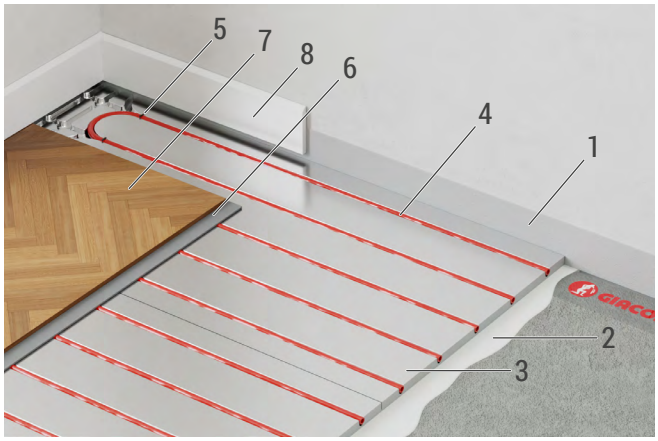
1	Dilation edge strip (K369A)
2	Polyurethane adhesive to fit the panel on top of the foundation (KADY160)
3	KLIMA DRY panel (R883-2, R884-2)
4	PE-RT pipe (R978)
5	Flat clips to fit the pipes on the bends (K809Y001)
6	Primer/glue possibly required to fit the tiles as per supplier's instructions
7	Ceramic tiles (min dimensions 45 x 45 cm)
8	Skirting

System with glued parquet coating



1	Dilation edge strip (K369A)
2	Polyurethane adhesive to fit the panel on top of the foundation (KADY160)
3	KLIMA DRY panel (R883-2, R884-2)
4	PE-RT pipe (R978)
5	Flat clips to fit the pipes on the bends (K809Y001)
6	Primer/mat/glue possibly required to fit the parquet as per supplier's instructions
7	Male-ended pre-finished parquet
8	Skirting

System with floating parquet coating



1	Dilation edge strip (K369A)
2	Polyurethane adhesive to fit the panel on top of the foundation (KADY160)
3	KLIMA DRY panel (R883-2, R884-2)
4	PE-RT pipe (R978)
5	Flat clips to fit the pipes on the bends (K809Y001)
6	Special support mat (not supplied by Giacomini)
7	Floating parquet for easier laying
8	Skirting

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italia
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com

Installation

KLIMA DRY is a dry radiant floor system (screed free) which enables to lay the flooring directly on top of the insulation panel. This characteristic, along with proper preparation of the foundation and strict compliance to the installation instructions, are paramount for thermal performance, mechanical stability and duration of the finished floor.

Preliminary inspections and preparing the foundation

- The foundation must be flat, even, compact and stable to guarantee proper gluing of the panels and adequate mechanical behavior in time. Any irregularity, detachment or structural weakness may compromise the radiant system operation and the duration of the flooring above.
- The surface planarity must be verified with a trowel long at least 2 mt. There should be no depressions or offsets greater than 2–3 mm. Failed compliance to the above will require a preventive intervention.
- To ensure structural solidity, the support should not present detachments or fractures. When hitting the surface with a hammer, no cracks or deep dents should form. Likewise, the surface compactness should be such to prevent the formation of dust or deep grooves when carving the surface with a metal tool.
- Only micro-cracks caused by regular shrinking of the concrete are allowed. All evident cracks, especially passing or evolving ones, should be preventively consolidated through appropriate products and techniques.
- The foundation must be cleaned accurately and free from dust, previous machining residues, oils, grease, wax or other detaching substances that might compromise the adhesives used to fit the panels.
- Control of the support residual humidity is paramount and must be performed exclusively with a calcium-carbide hygrometer. The limit values admitted for the system installation are 2.0% for concrete foundations, 0.4% for anhydrite foundations and 10.0% for wooden panel supports. The measurement of foundations particularly thick must consider the entire height and not just the surface. Should the humidity limits not be complied to, the installation will have to be postponed after proper corrective interventions are carried out.
  The constructor must also provide a statement for the plumber, indicating the humidity content of the foundation upon installation.

NOTE. Giacomini recommends a preliminary inspection with the plumber, the floor installer and the constructor to formally verify the fitness of the support. The verification outcome, properly documented and enclosed with the system conformity statement, represents a technical guarantee for all the parties involved.

- KLIMA DRY can also be installed on pre-existing rigid floors, such as ceramic and natural stone, as long as all requirements for planarity, solidity, cleanness and absence of residual humidity or risers are complied with. In such cases, thorough cleaning, degreasing or surface roughing are required to provide proper gluing.

WARNING. Never install the system on textile or resilient floorings, such as fitted carpets, linoleum or PVC, which must be removed first.

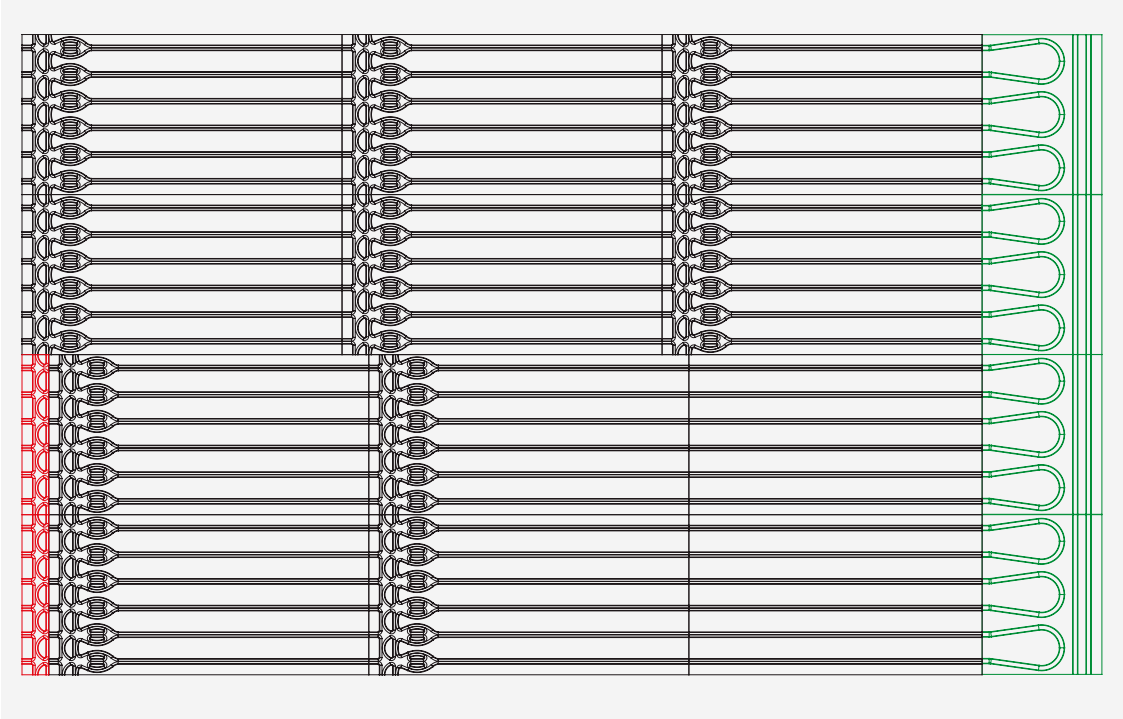
WARNING - STORING THE PANEL. KLIMA DRY panels must be stored indoors, in dry areas protected from atmospheric agents, direct sun light and water stagnation. Prevent impacts, crushing or damages caused by improper stocking or unauthorized handling in order to preserve the material integrity and guarantee proper installation.

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italia
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com

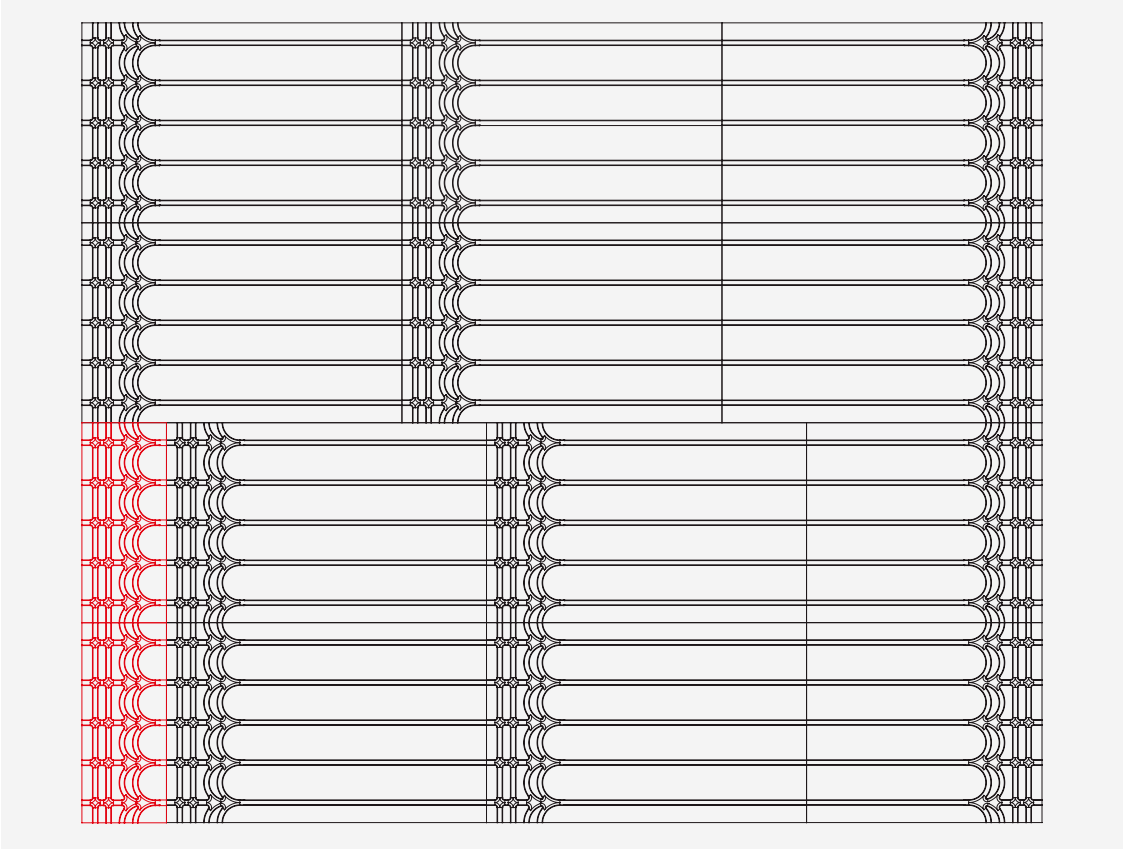
1) Laying the edge strip (K369A)
Before installing the insulation panels, place a compressible edge strip along the entire perimeter of the rooms and around all vertical elements. The strip absorbs the thermal dilations of the floor system and prevents stressing the structures.

2) Gluing the insulation panels (R883-2, R884-2)
Aluminum-coated insulation panels are glued to the foundation with an appropriate adhesive (KADY160) guaranteeing an even and uninterrupted contact surface.

Example of installation diagram for panels with 100 mm spacing



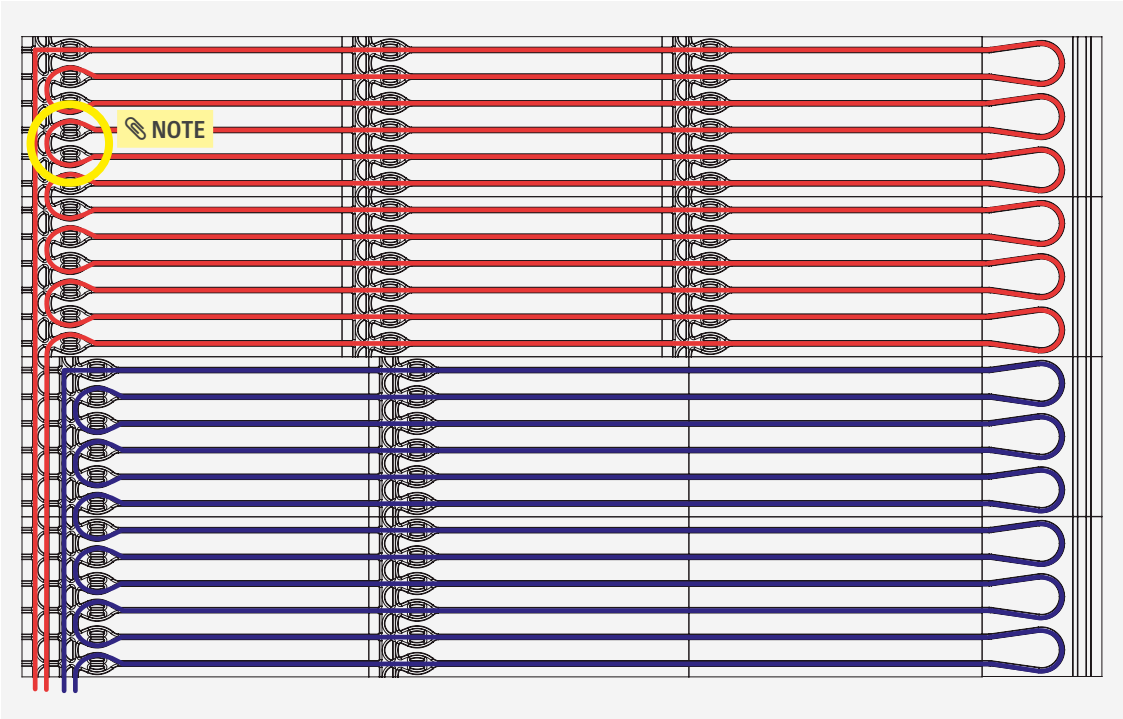
Example of installation diagram for panels with 150 mm spacing



3) Installing the PE-RT pipes (R978)

Pipes are installed inside the appropriate groves of the panels so that they are fully and firmly fitted without extending from the installation plane.
To better fit the pipes, use K809Y001 flat clips near the initial terminal of the manifold or near the panel bends.

Example of installation diagram for pipes with 100 mm spacing

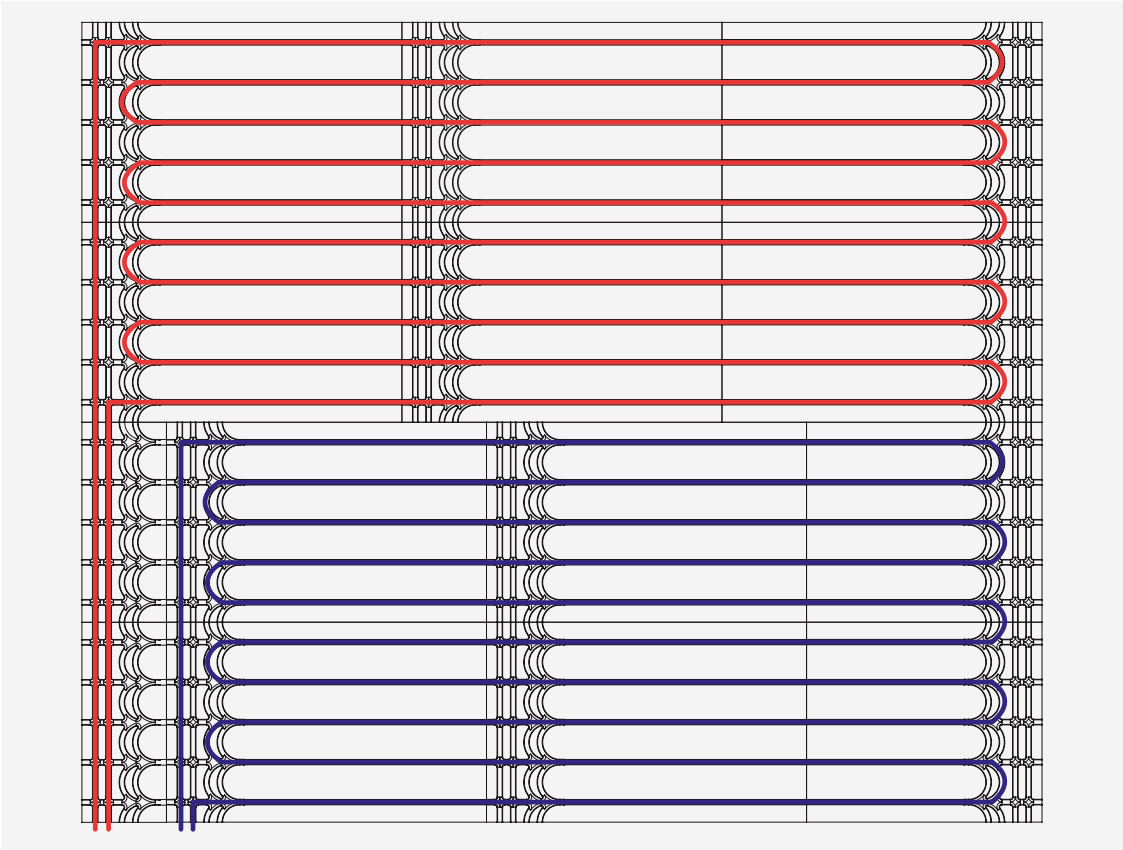


Cicuit 1 in PE-RT R978

Cicuit 2 in PE-RT R978

NOTE. To allow the pipe to bend on the R883Y201 insulating panel, it is necessary to create the curved shape of the panel on site using a special cutter and following the pre-cuts on the aluminium sheet.

Example of installation diagram for pipes with 150 mm spacing



Cicuit 1 in PE-RT R978

Cicuit 2 in PE-RT R978

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italia
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com

4) Pressure testing of the system seal

Once the pipes are installed, the system can be pressurized to test its seal in compliance with the methods and values provided for by standard EN 1264 to verify its proper installation and the absence of leaks before realizing the subsequent layers.

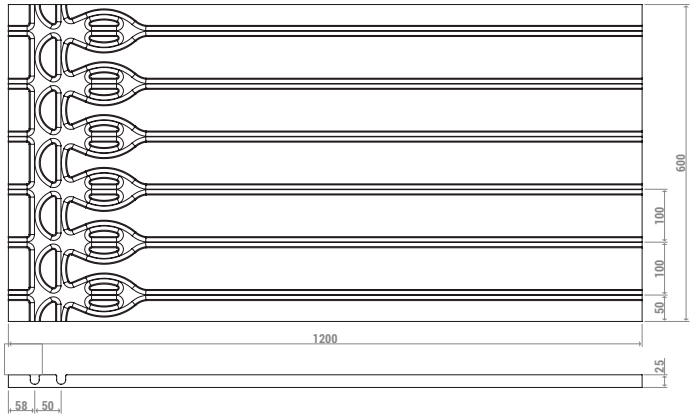
5) Laying the flooring

Once the system has been tested, it will be ready to place the screed-free floor.

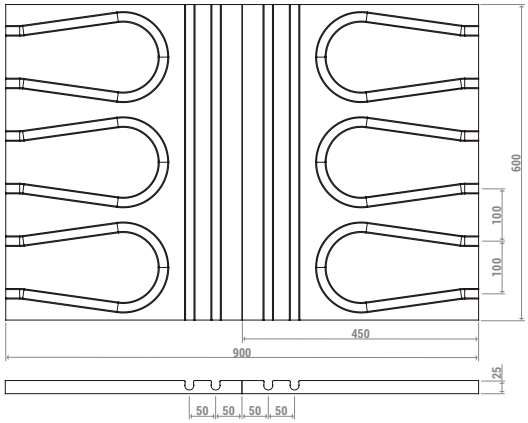
- In case of ceramic or glued parquet, the coating is glued directly to the radiant system with high performance adhesives specific for dry radiant systems. Protection or gripping primers, as well as support mats or layers, may be used if provided for by the flooring manufacturer to guarantee appropriate adherence, duration of the coating and compatibility to the system thermal stresses
  Joints are filled with products specific for radiant systems.
  The dilation joints must be sealed with elastic materials to ensure a long-lasting life to the system.
- With floating parquets, a mat specific for dry radiant systems must be placed on top. The floating parquet is then placed on top of the mat according to the coating and radiant system manufacturer's indications.

Dimensions

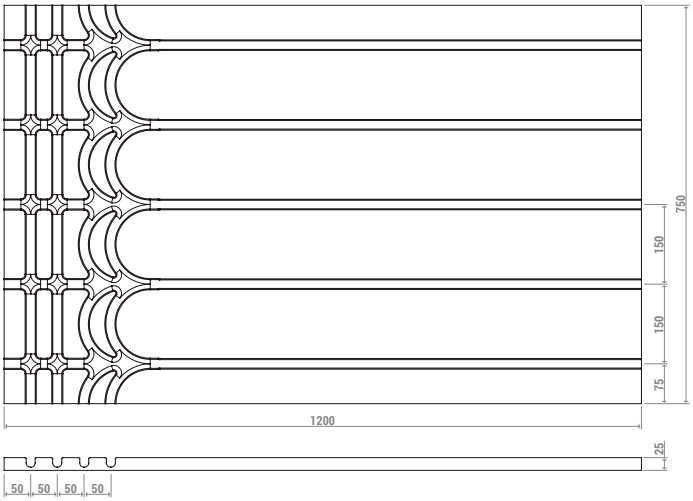
R883Y201



R884Y201



R883Y202



Product specifications

KLIMA DRY system: R883-2, R884-2

Insulation panel with high-mechanical resistance, EPS 500 sintered expanded polystyrene, coated on top with an aluminum sheet, fit for dry radiant HVAC systems (reduced height, screed free) and load distributers, direct installation of floors on the panel and featuring low thermal inertia.

Parallel linear grooves for pipe installation (Ø16 cm for panels with 100-mm spacing; Ø16-17 cm for panels with 150-mm spacing).

Pre-shaped head bends for panels with 150-mm spacing; additional head panel for pre-shaped bends for use with 100-mm spacing.

The installer can create additional grooves and abductions with a traditional cutter.

Thermal conductivity (EN 12667): 0,033 W/m K.

Thermal resistance (EN 12667 or EN 12939):

- panel with 100-mm spacing: 0,68 (m^2K)/W
- panel with 150-mm spacing: 0,70 (m^2K)/W
- head panel with 100-mm spacing: 0,67 (m^2K)/W

Long-term water absorption (EN 12087): < 2,5%

Dimensional stability under normal and steady lab conditions (EN 1603):± 0,2%

Dimensional stability under specific humidity and temperature conditions (EN 1604): ± 1,0% Reaction to fire (EN 13501-1) Euroclass: E

Aluminum coating film for panels with 100- and 150-mm spacing: 0,2 mm

PS coating film for head panels with 100-mm spacing: 0,16 mm

Panel dimensions:

- Panel with 100-mm spacing: 1200 x 600 mm (useful surface 0,72 m2)
- Panel with 150-mm spacing: 1200 x 750 mm (useful surface 0,90 m2)
- Head panel with 100-mm spacing:: 900 x 600 mm (useful surface 0,54 m2)

Panel height: 25 mm.

Safety Warning. Installation, commissioning and periodical maintenance of the product must be carried out by qualified operators in compliance with national regulations and/or local standards. A qualified installer must take all required measures, including use of Individual Protection Devices, for his and others' safety. An improper installation may damage people, animals or objects towards which Giacomini S.p.A. may not be held liable.

Package Disposal. Carton boxes: paper recycling. Plastic bags and bubble wrap: plastic recycling.

Additional information. For more information, go to giacomini.com or contact our technical assistance service. This document provides only general indications. Giacomini S.p.A. may change at any time, without notice and for technical or commercial reasons, the items included herewith. The information included in this technical sheet do not exempt the user from strictly complying with the rules and good practice standards in force.

Product Disposal. Do not dispose of product as municipal waste at the end of its life cycle. Dispose of product at a special recycling platform managed by local authorities or at retailers providing this type of service.

Giacomini S.p.A.
Via per Alzo 39, 28017 San Maurizio d'Opaglio (NO) Italia
consulenza.prodotti@giacomini.com
+39 0322 923111 - giacomini.com