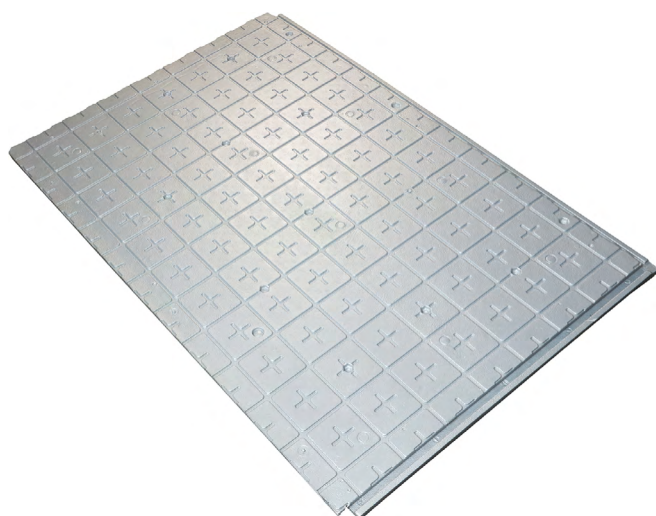


Flat insulation panel made of EPS with graphite, for radiant floor systems

Datasheet
0986EN  12/2019

Pannello isolante piano R981G, per impianti a pavimento radiante.

Realizzato in polistirene espanso sinterizzato a doppia densità (EPS200+EPS120), self-extinguishing with lower layer added with graphite, with shockproof polyethylene protection layer working also as steam barrier.

Provided with printed grid with pitch reference: 50x50 mm and 100x100 mm.

Versions and product codes

PRODUCT CODE	SIZE [mm] h=height	N. OF SHEETS	TOTAL USEFUL SURFACE [m²]
R981GY003	h30	10	9,60
R981GY004	h40	8	7,68
R981GY005	h50	6	5,76
R981GY006	h60	5	4,80

Technical data

Stocking conditions

- The panels must not be exposed to direct sunlight
- Stocking must be carried out in a dry and protected area, at temperatures above 5 °C and below 50 °C
- Keep the panels away from chemical agents
- Keep the panels away from open flames and heat sources

▲ WARNING. Do not expose to direct sunlight, even after installation, up to screed casting.

R981GY003

INSULATION PANEL	
Useful dimensions	1200 x 800 mm
Useful surface	0,96 m ²
Total thickness	30 mm
Printed grid	50x50 mm and 100x100 mm
INSULATION SHEET	
Material	Double density expanded polystyrene with graphite EPS200+EPS120
Thermal conductivity, λ_D	EPS200: 0,033 W/(m K) EPS120: 0,031 W/(m K)
Thermal resistance R_λ	0,94 m ² K/W
Min. resistance to 10% crushing	200 kPa
Reaction to fire	Class E
Classification according to EN13163	EPS-EN13163-T2-L3-W3-Sb5-P30-BS170/350-CS(10)120/200-DS(N)2-WL(T)4-SD30-CP2
PROTECTION LAYER	
Material	Shockproof thermo-welded polyethylene
Thickness	0,15 mm
Film color	Grey

R981GY003

INSULATION PANEL	
Useful dimensions	1200 x 800 mm
Useful surface	0,96 m ²
Total thickness	40 mm
Printed grid	50x50 mm and 100x100 mm
INSULATION SHEET	
Material	Double density expanded polystyrene with graphite EPS200+EPS120
Thermal conductivity, λ_D	EPS200: 0,033 W/(m K) EPS120: 0,031 W/(m K)
Thermal resistance R_λ	1,25 m ² K/W
Min. resistance to 10% crushing	200 kPa
Reaction to fire	Class E
Classification according to EN13163	EPS-EN13163-T2-L3-W3-Sb5-P30-BS170/350-CS(10)120/200-DS(N)2-WL(T)4-SD30-CP2
PROTECTION LAYER	
Material	Shockproof thermo-welded polyethylene
Thickness	0,15 mm
Film color	Grey

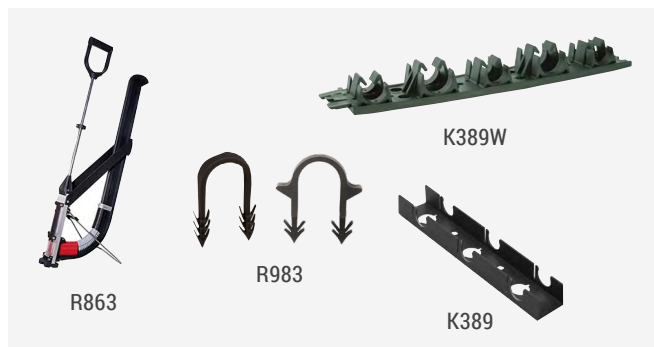
Rg81GY005

INSULATION PANEL	
Useful dimensions	1200 x 800 mm
Useful surface	0,96 m ²
Total thickness	50 mm
Printed grid	50x50 mm and 100x100 mm
INSULATION SHEET	
Material	Double density expanded polystyrene with graphite EPS200+EPS120
Thermal conductivity, λ_D	EPS200: 0,033 W/(m K) EPS120: 0,031 W/(m K)
Thermal resistance R_λ	1,56 m ² K/W
Min. resistance to 10% crushing	200 kPa
Reaction to fire	Class E
Classification according to EN13163	EPS-EN13163-T2-L3-W3-Sb5-P30-BS170/350-CS(10)120/200-DS(N)2-WL(T)4-SD30-CP2
PROTECTION LAYER	
Material	Shockproof thermo-welded polyethylene
Thickness	0,15 mm
Film color	Grey

Rg81GY006

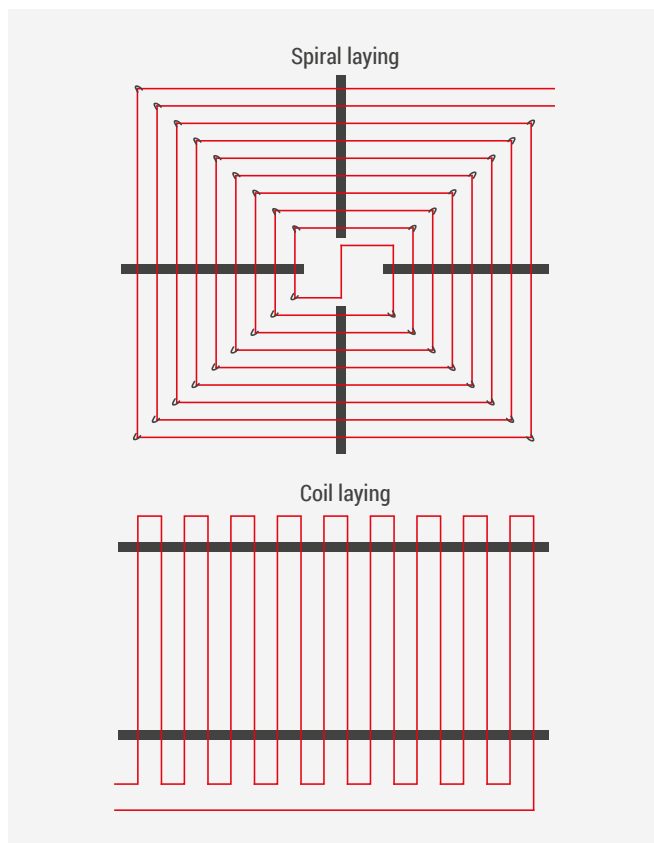
INSULATION PANEL	
Useful dimensions	1200 x 800 mm
Useful surface	0,96 m ²
Total thickness	60 mm
Printed grid	50x50 mm and 100x100 mm
INSULATION SHEET	
Material	Double density expanded polystyrene with graphite EPS200+EPS120
Thermal conductivity, λ_D	EPS200: 0,033 W/(m K) EPS120: 0,031 W/(m K)
Thermal resistance R_λ	1,88 m ² K/W
Min. resistance to 10% crushing	200 kPa
Reaction to fire	Class E
Classification according to EN13163	EPS-EN13163-T2-L3-W3-Sb5-P30-BS170/350-CS(10)120/200-DS(N)2-WL(T)4-SD30-CP2
PROTECTION LAYER	
Material	Shockproof thermo-welded polyethylene
Thickness	0,15 mm
Film color	Grey

► Laying



The panels must be installed side by side using the side rails to connect them.

The pipes are fitted to the insulation panel to create the radiant floor circuits using pipe installation tracks K389 or K389W, or pipe installation clips R983Y001, R983Y500 with clip tacker R983.



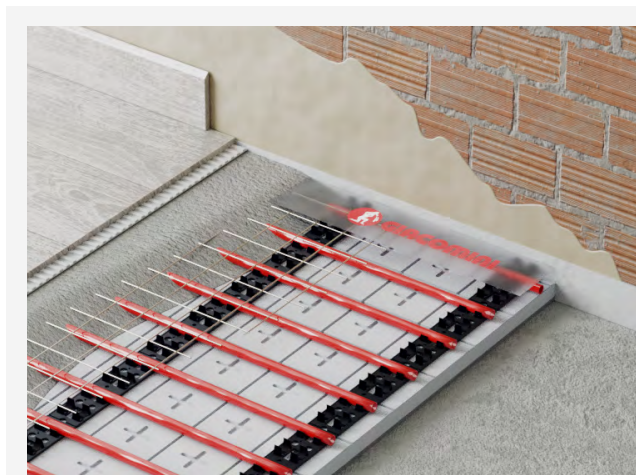
The pipes can be installed with different patterns by forming spiral loops as required.

When laying is completed, and before casting the screed, we recommend installing electro-welded sheet K393 with large meshes over the panel.

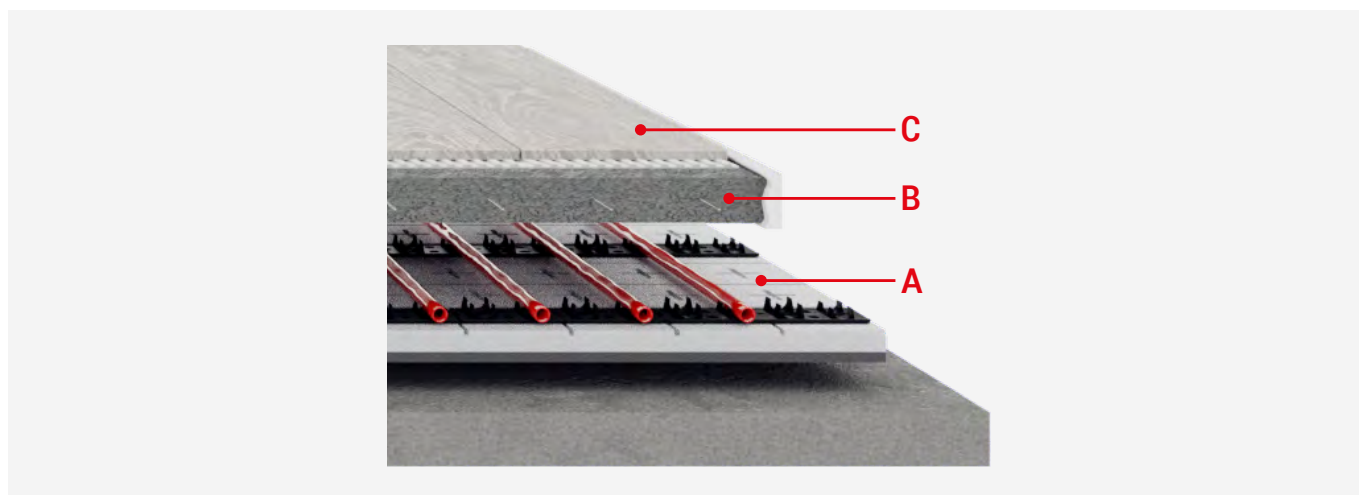
The dimensions required for a residential radiant panel system are represented by the height of the preformed insulation panel (30-60 mm) added to the screed thickness (at least 30 mm, according to UNI EN 1264-4) and the thickness of the tile or glued pit surface finish.

Systems employing preformed insulation panels R981G and edge strip K369 feature high outputs and reduced start up times for their limited thermal inertia.

▲ WARNING. Do not lay the product when room temperature is below 5 °C.



➤ Components and dimensions



PRODUCT CODE	PANEL "A" TOTAL HEIGHT [mm]	SCREED "B" MINIMUM HEIGHT [mm]	"A+B" MINIMUM HEIGHT COATING "C" EXCLUDED" [mm]
R981GY003	30	30*	60**
R981GY004	40	30*	70**
R981GY005	50	30*	80**
R981GY006	60	30*	90**

* Starting from the pipe top

** + pipe diameter

➤ Reference standards

- EN 1264: Floor heating – Systems and components.
- EN 13163: Thermal insulation products for buildings – Factory made products of expanded polystyrene (EPS).

Product specifications

R981GY003

Flat insulation panel for radiant floor systems. Consisting of double density expanded polystyrene foam with graphite (EPS200+EPS120) with shockproof polyethylene protection layer working also as steam barrier. Provided with printed grid with pitch reference: 50x50 mm and 100x100 mm. Dimensions: 1200x800 mm. Useful surface: 0,96 m². Panel height: 30 mm. Thermal conductivity: EPS200: 0,033 W/(m K); EPS120: 0,031 W/(m K). Thermal resistance: 0,94 m² K/W. Min. resistance to 10 % crushing: 200 kPa.

R981GY004


Flat insulation panel for radiant floor systems. Consisting of double density expanded polystyrene foam with graphite (EPS200+EPS120) with shockproof polyethylene protection layer working also as steam barrier. Provided with printed grid with pitch reference: 50x50 mm and 100x100 mm. Dimensions: 1200x800 mm. Useful surface: 0,96 m². Panel height: 40 mm. Thermal conductivity: EPS200: 0,033 W/(m K); EPS120: 0,031 W/(m K). Thermal resistance: 1,25 m² K/W. Min. resistance to 10 % crushing: 200 kPa.


R981GY005


Flat insulation panel for radiant floor systems. Consisting of double density expanded polystyrene foam with graphite (EPS200+EPS120) with shockproof polyethylene protection layer working also as steam barrier. Provided with printed grid with pitch reference: 50x50 mm and 100x100 mm. Dimensions: 1200x800 mm. Useful surface: 0,96 m². Panel height: 50 mm. Thermal conductivity: EPS200: 0,033 W/(m K); EPS120: 0,031 W/(m K). Thermal resistance: 1,56 m² K/W. Min. resistance to 10 % crushing: 200 kPa.


R981GY006

Flat insulation panel for radiant floor systems. Consisting of double density expanded polystyrene foam with graphite (EPS200+EPS120) with shockproof polyethylene protection layer working also as steam barrier. Provided with printed grid with pitch reference: 50x50 mm and 100x100 mm. Dimensions: 1200x800 mm. Useful surface: 0,96 m². Panel height: 60 mm. Thermal conductivity: EPS200: 0,033 W/(m K); EPS120: 0,031 W/(m K). Thermal resistance: 1,88 m² K/W. Min. resistance to 10 % crushing: 200 kPa.

 **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.