R981XPS

Radiant Systems

Flat insulation panel made of XPS, for radiant floor systems

Datasheet
0988EN 04/2024

Flat insulation panel for radiant floor systems.
Consisting of extruded polystyrene foam (XPS).

Versions and product codes

PRODUCT CODE	SIZE [mm] h=height	N. OF SHEETS	TOTAL USEFUL SURFACE [m²]	MATERIAL
R981XY003	h30	14	10,50	
R981XY004	h40	10	7,50	
R981XY005	h50	8	6,00	
R981XY006	h60	7	5,25	
R981XY015	h50	8	6,00	XPS500
R981XY016	h60	7	5,25	

GIACOMINI WATER E-MOTION

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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.

R981XY003

INSULATION PANEL	
Useful dimensions	1250 x 600 mm
Useful surface	0,75 m²
Total thickness	30 mm
INSULATION SHEET	
Material	Extruded polystyrene foam (XPS300)
Thermal conductivity, λ_D	0,034 W/(m K)
Thermal resistance R_λ	0,85 m²K/W
Min. resistance to 10% crushing	300 kPa
Reaction to fire	Class E
Classification according to EN13164	XPS-EN13164-T(1)-CS(10/Y)300-DLT(2)5-DS(70,90)-WL(T)0,7-MV150

R981XY004

INSULATION PANEL	
Useful dimensions	1250 x 600 mm
Useful surface	0,75 m²
Total thickness	40 mm
INSULATION SHEET	
Material	Extruded polystyrene foam (XPS300)
Thermal conductivity, λ_D	0,034 W/(m K)
Thermal resistance R_λ	1,15 m²K/W
Min. resistance to 10% crushing	300 kPa
Reaction to fire	Class E
Classification according to EN13164	XPS-EN13164-T(1)-CS(10/Y)300-DLT(2)5-DS(70,90)-WL(T)0,7-MV150

R981XY005

INSULATION PANEL	
Useful dimensions	1250 x 600 mm
Useful surface	0,75 m²
Total thickness	50 mm
INSULATION SHEET	
Material	Extruded polystyrene foam (XPS300)
Thermal conductivity, λ_D	0,034 W/(m K)
Thermal resistance R_λ	1,45 m²K/W
Min. resistance to 10% crushing	300 kPa
Reaction to fire	Class E
Classification according to EN13164	XPS-EN13164-T(1)-CS(10/Y)300-DLT(2)5-DS(70,90)-WL(T)0,7-MV150

R981XY006

INSULATION PANEL	
Useful dimensions	1250 x 600 mm
Useful surface	0,75 m²
Total thickness	60 mm
INSULATION SHEET	
Material	Extruded polystyrene foam (XPS300)
Thermal conductivity, λ_D	0,034 W/(m K)
Thermal resistance R_λ	1,75 m²K/W
Min. resistance to 10% crushing	300 kPa
Reaction to fire	Class E
Classification according to EN13164	XPS-EN13164-T(1)-CS(10/Y)300-DLT(2)5-DS(70,90)-WL(T)0,7-MV150

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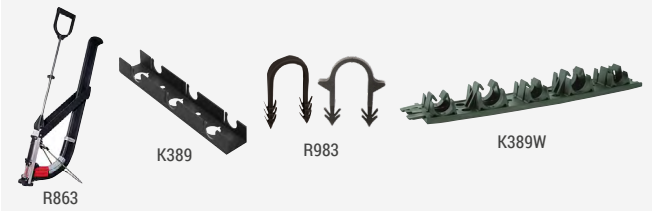
R981XY015

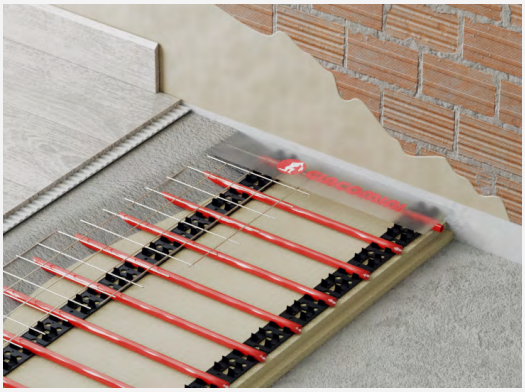
INSULATION PANEL	
Useful dimensions	1250 x 600 mm
Useful surface	0,75 m²
Total thickness	50 mm
INSULATION SHEET	
Material	Extruded polystyrene foam (XPS500)
Thermal conductivity, λ_D	0,034 W/(m K)
Thermal resistance R_λ	1,45m²K/W
Min. resistance to 10% crushing	500 kPa
Reaction to fire	Class E
Classification according to EN13164	XPS-EN13164-T(1)-CS(10/Y)500-DLT(2)5-DS(70,90)-WL(T)0,7-MV200

R981XY016

INSULATION PANEL	
Useful dimensions	1250 x 600 mm
Useful surface	0,75 m²
Total thickness	60 mm
INSULATION SHEET	
Material	Extruded polystyrene foam (XPS500)
Thermal conductivity, λ_D	0,034 W/(m K)
Thermal resistance R_λ	1,75 m²K/W
Min. resistance to 10% crushing	500 kPa
Reaction to fire	Class E
Classification according to EN13164	XPS-EN13164-T(1)-CS(10/Y)500-DLT(2)5-DS(70,90)-WL(T)0,7-MV200

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.
Systems employing preformed insulation panels R981XPS and edge strip K369 feature high thermal outputs and reduced start up times for their limited thermal inertia.

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

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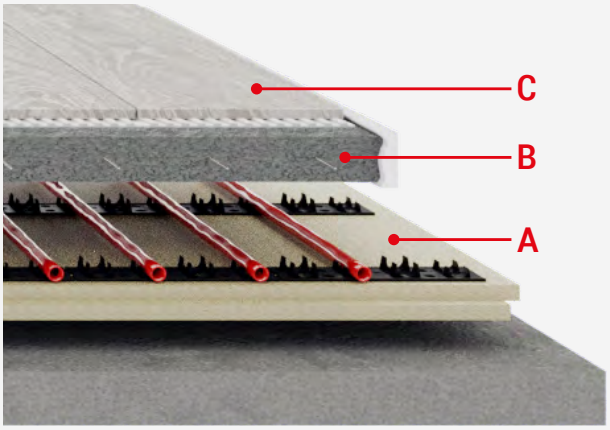
Components and dimensions



* Starting from the pipe top
** + pipe diameter

PRODUCT CODE	PANEL "A" TOTAL HEIGHT [mm]	SCREED "B" MINIMUM HEIGHT [mm]	"A+B" MINIMUM HEIGHT COATING "C" EXCLUDED [mm]
R981XY003	h30	30*	60**
R981XY004	h40	30*	70**
R981XY005	h50	30*	80**
R981XY006	h60	30*	90**
R981XY015	h50	30*	80**
R981XY016	h60	30*	90**

Reference standards

- EN 1264: Floor heating – Systems and components.
- EN 13164: Thermal insulation products for buildings – Factory made products of expanded polystyrene (EPS).

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Product specifications

R981XY003
Flat insulation panel for radiant floor systems. Extruded polystyrene foam (XPS300). Dimensions: 1250x600 mm. Useful surface: 0,75 m². Panel height: 30 mm. Thermal conductivity: 0,034 W/(m K). Thermal resistance: 0,85 m² K/W. Min. resistance to 10 % crushing: 300 kPa.

R981XY004
Flat insulation panel for radiant floor systems. Extruded polystyrene foam (XPS300). Dimensions: 1250x600 mm. Useful surface: 0,75 m². Panel height: 40 mm. Thermal conductivity: 0,034 W/(m K). Thermal resistance: 1,15 m² K/W. Min. resistance to 10 % crushing: 300 kPa.

R981XY005
Flat insulation panel for radiant floor systems. Extruded polystyrene foam (XPS300). Dimensions: 1250x600 mm. Useful surface: 0,75 m². Panel height: 50 mm. Thermal conductivity: 0,034 W/(m K). Thermal resistance: 1,45 m² K/W. Min. resistance to 10 % crushing: 300 kPa.

R981XY006
Flat insulation panel for radiant floor systems. Extruded polystyrene foam (XPS300). Dimensions: 1250x600 mm. Useful surface: 0,75 m². Panel height: 60 mm. Thermal conductivity: 0,034 W/(m K). Thermal resistance: 1,75 m² K/W. Min. resistance to 10 % crushing: 300 kPa.

R981XY015
Flat insulation panel for radiant floor systems. Extruded polystyrene foam (XPS500). Dimensions: 1250x600 mm. Useful surface: 0,75 m². Panel height: 50 mm. Thermal conductivity: 0,034 W/(m K). Thermal resistance: 1,45 m² K/W. Min. resistance to 10 % crushing: 500 kPa.

R981XY016
Flat insulation panel for radiant floor systems. Extruded polystyrene foam (XPS500). Dimensions: 1250x600 mm. Useful surface: 0,75 m². Panel height: 60 mm. Thermal conductivity: 0,034 W/(m K). Thermal resistance: 1,75 m² K/W. Min. resistance to 10 % crushing: 500 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.

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