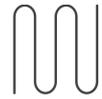


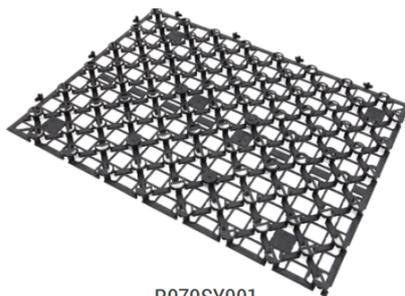
# R979S



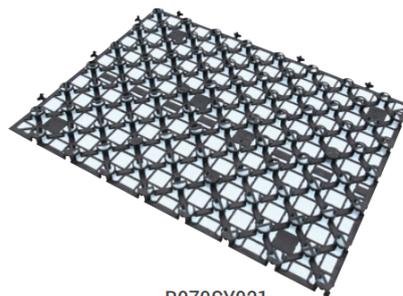
Radiant  
Systems

## Spider and Spider Slim, panels for radiant floor systems of low thickness, and renovations

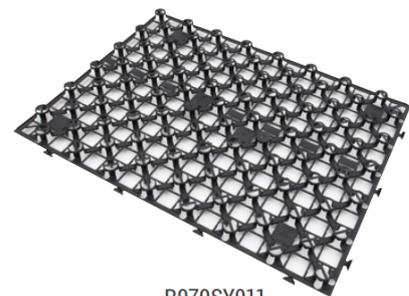
Datasheet  
0749EN ↻ 10/2018



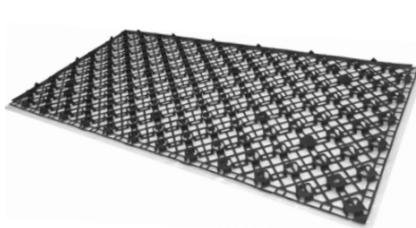
R979SY001  
SPIDER



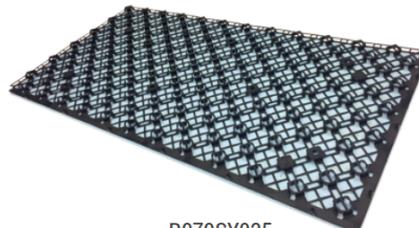
R979SY021  
SPIDER



R979SY011  
SPIDER



R979SY005  
SPIDER SLIM



R979SY025  
SPIDER SLIM

The Spider R979S panel is a moulded net in loaded polypropylene. The radiant floor system with R979S panels has a reduced height, a characteristic that is especially advantageous during renovation works.

The patented geometry uses a three-dimensional net to hold the pipe firmly in place during the laying operations, and to embed it completely in the screed to guarantee even temperature distribution with a low degree of thermal inertia to the system. The innovative perforated protuberance allows the panel to be used with both sand and cement based screed and selflevelling screed (in which case the system height is about 25 mm).

The R979S panel offers excellent footfall resistance, so the installer is able to lay the pipe without any fear of crushing it. Each protuberance has four pipe locking elements that make it easier to position the pipe, without the need for clips in the points where it changes direction. The interlocks positioned on the panel side guarantee firm anchoring between one panel and the next.



**VIDEO**  
Point the QR-Code with your smartphone or tablet to view the video tutorial of SPIDER panels R979SY001, R979SY011 and R979SY021



**VIDEO**  
Point the QR-Code with your smartphone or tablet to view the video tutorial of SPIDER SLIM panels R979SY005 and R979SY025

## > Versions and product codes

SERIES	PRODUCT CODE	VERSION	HEIGHT [mm]	APPLICATION
R979S SPIDER	R979SY001	Self-adhesive	22	Renovations and reduced thickness applications
	R979SY011	With pins	22 + 13 pins	To be combined with existing insulation
	R979SY021	With high-density insulation	22 + 6 insulation	Renovations and reduced thickness applications
R979S SPIDER SLIM	R979SY005	Self-adhesive	15	Renovations and reduced thickness applications
	R979SY025	With high-density insulation	15 + 6 insulation	Renovations and reduced thickness applications

## Completion codes



- R983Yo40: plastic plug Ø 6x25 mm, for R979SY001, R979SY005, R979SY021, R979SY025 panels fixing



- R983Yo41: plastic plug Ø 6x60 mm, for pipes fixing

## > Technical data

- Pipe diameter that can be used: Ø 16÷18 mm for R979SY001, R979SY011, R979SY021  
Ø 12 mm for R979SY005, R979SY025
- Pipe laying pitch: multiples of 50 mm
- Fluidity index: 8 g/10'
- Density at 23 °C: 1,1 g/cm<sup>3</sup>
- Thermal conductivity λ (for R979SY021 and R979SY025 only): 0,032 W/(m K)
- Flexure module: 1200 Mpa
- Izod shock resistance at 23 °C: 6 kJ/m<sup>2</sup>
- Vicat softening temperature: > 50 °C
- Dimensions: 800x600 mm for R979SY001, R979SY011, R979SY021  
1200x600 mm for R979SY005, R979SY025

## Storage conditions

- The panels must not be exposed to direct sunlight
- The panels must be stored in a dry, sheltered place at temperatures higher than 5 °C but lower than 50 °C
- The panels must not come into contact with chemical agents
- Keep the panels away from naked flames and heat sources

**⚠ WARNING.** Store in covered place, not expose to direct sunlight also after the installation, until laying the screed.

## > Installation

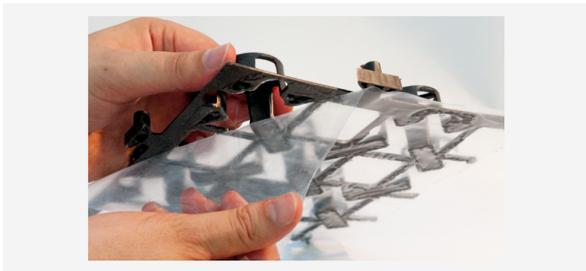
**⚠ WARNING.** Do not proceed with the installation of the product if the working environment temperature is lower than -5 °C.

1) Remove any dusty or liquid residue from the foundations.

2) Lay the edge strip.

3) Lay the R979S panel:

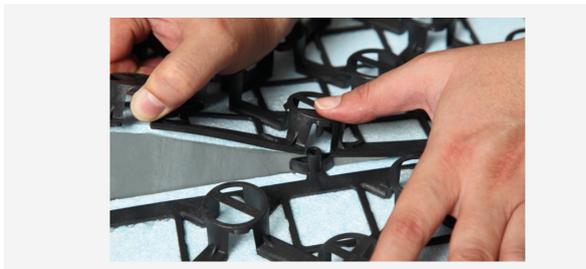
a. for codes R979SY001 and R979SY005, remove the protective film from the lower plate, then glue the panel to the foundations or existing floor, overlapping the side couplings to ensure each panel is interlocked with the next one (it may be necessary to use some R983Y040 plugs to make sure the net adheres to an existing floor that is not perfectly clean and smooth).



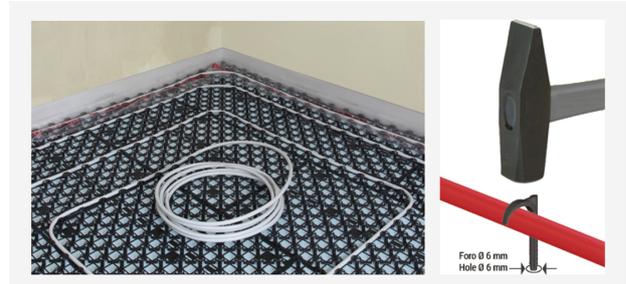
b. for code R979SY011, couple the panel with the smooth insulation that has already been laid, overlapping the panels to ensure each one is interlocked with the next (if necessary, use clips to fix the panel to the insulation).



c. for codes R979SY021 and R979SY025, position the panels on the foundations or existing floor, overlapping the side couplings to ensure each panel is interlocked with the next one (it may be necessary to use some R983Y040 plugs to make sure the net adheres to an existing floor).



4) Lay the pipes (it may be necessary to use some R983Y041 plugs for pipe anchorage).



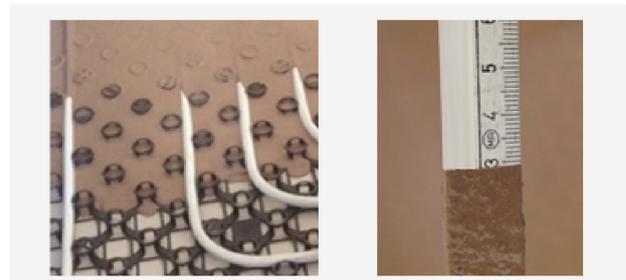
5) Carry out the pressure test.

6) With the system pressured, cast the self-levelling screed or sand+cement screed \*

### \* NOTES.

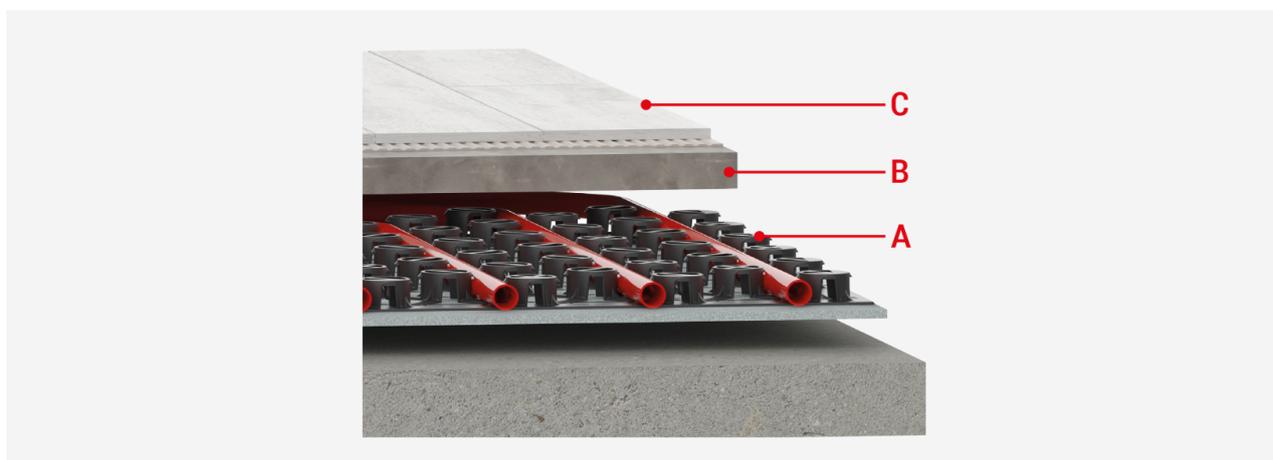
in the case of self-levelling screed, respect the supplier's instructions. In the case of sand+cement screed and an insulating panel, the distributed load must be  $\leq 2$  kN/m<sup>2</sup> and the maximum compressibility of the insulating layers is  $c \leq 5$  mm (DIN 18560/2).

6) With the system pressured, cast the self-levelling screed or sand+cement screed \*



7) Complete the work by laying the surface finish.

## > Components and dimensions



PRODUCT CODE	PANEL TOTAL HEIGHT "A" [mm]	INSULATION HEIGHT [mm]	SCREED MINIMUM HEIGHT "B" [mm]	MINIMUM HEIGHT "A+B" EXCLUDED SURFACE FINISH "C" [mm]
R979SY001	22	-	25 (self-leveling) 35 (anhydrite-based) 40 (sand+concrete)	25 (self-leveling) 35 (anhydrite-based) 40 (sand+concrete)
R979SY011	22 + pins	S <sub>i</sub> *	35 (anhydrite-based) 40 (sand+concrete)	35+S <sub>i</sub> (anhydrite-based) 40+S <sub>i</sub> (sand+concrete)
R979SY021	28 (insulation included)	6	30 (self-leveling) 35 (anhydrite-based) 40 (sand+concrete)	36 (self-leveling) 41 (anhydrite-based) 46 (sand+concrete)
R979SY005	15	-	20 (self-leveling) 35 (anhydrite-based) 40 (sand+concrete)	20 (self-leveling) 35 (anhydrite-based) 40 (sand+concrete)
R979SY025	21 (insulation included)	6	22 (self-leveling) 35 (anhydrite-based) 40 (sand+concrete)	28 (self-leveling) 41 (anhydrite-based) 46 (sand+concrete)

\* S<sub>i</sub> = insulation thickness, not included with R979S

## > Reference Standards

- UNI EN 1264 Underfloor heating
- Legislative Decree 192/2005 e 311/2006 Energy savings
- ISO 1183, ISO 178, ISO180, ISO 306 Plastic materials

## > Product specifications

### R979SY001

Three-dimensional moulded net in loaded polypropylene for fixing pipes in underfloor heating systems. The lower panel surface is self-adhesive, so it can be glued to the foundations or existing floor. Limited height (22 mm), making it ideal for renovations or in reduced thickness applications. The patented geometry allows the pipe to be held firmly in place during the laying operations, and to be completely embedded in the screed to guarantee even temperature distribution with a low degree of thermal inertia. The perforated protuberances allow the panel to be used with both self-levelling screed and screed made up of sand and cement. Excellent footfall resistance. Dimensions 800x600x22 mm. Pipes from Ø 16 to Ø 18 mm. Pipe laying pitch: multiples of 50 mm.

### R979SY005

Three-dimensional moulded net in loaded polypropylene for fixing pipes in underfloor heating systems. The lower panel surface is self-adhesive, so it can be glued to the foundations or existing floor. Limited height (15 mm), making it ideal for renovations or in reduced thickness applications. The patented geometry allows the pipe to be held firmly in place during the laying operations, and to be completely embedded in the screed to guarantee even temperature distribution with a low degree of thermal inertia. The perforated protuberances allow the panel to be used with both self-levelling screed and screed made up of sand and cement. Excellent footfall resistance. Dimensions 1200x600x22 mm. Pipes from Ø 12 mm. Pipe laying pitch: multiples of 50 mm.

### R979SY011

Three-dimensional moulded net in loaded polypropylene for fixing pipes in underfloor heating systems. With 13 mm pins on the lower surface of the panel, for anchoring it to a layer of insulation. Limited height (22 mm), making it ideal for renovations or in reduced thickness applications. The patented geometry allows the pipe to be held firmly in place during the laying operations, and to be completely embedded in the screed to guarantee even temperature distribution with a low degree of thermal inertia. The perforated protuberances allow the panel to be used with both self-levelling screed and screed made up of sand and cement. Excellent footfall resistance. Dimensions 800x600x(22+13) mm. Pipes from Ø 16 to Ø 18 mm. Pipe laying pitch: multiples of 50 mm.

### R979SY021

Three-dimensional moulded net in loaded polypropylene for fixing pipes in underfloor heating systems. Combined with a 6 mm high-density insulating panel. Limited height (22+6 mm), making it ideal for renovations or in reduced thickness applications. The patented geometry allows the pipe to be held firmly in place during the laying operations, and to be completely embedded in the screed to guarantee even temperature distribution with a low degree of thermal inertia. The perforated protuberances allow the panel to be used with both self-levelling screed and screed made up of sand and cement. Excellent footfall resistance. Dimensions 800x600x(22+6) mm. Pipes from Ø 16 to Ø 18 mm. Pipe laying pitch: multiples of 50 mm. Thermal conductivity  $\lambda$ : 0,032 W/(m K).

### R979SY025

Three-dimensional moulded net in loaded polypropylene for fixing pipes in underfloor heating systems. Combined with a 6 mm high-density insulating panel. Limited height (15+6 mm), making it ideal for renovations or in reduced thickness applications. The patented geometry allows the pipe to be held firmly in place during the laying operations, and to be completely embedded in the screed to guarantee even temperature distribution with a low degree of thermal inertia. The perforated protuberances allow the panel to be used with both self-levelling screed and screed made up of sand and cement. Excellent footfall resistance. Dimensions 1200x600x(15+6) mm. Pipes from Ø 12 mm. Pipe laying pitch: multiples of 50 mm. Thermal conductivity  $\lambda$ : 0,032 W/(m K).

**⚠ 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.

**ℹ Additional information.** For more information, go to [giacomini.com](http://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.