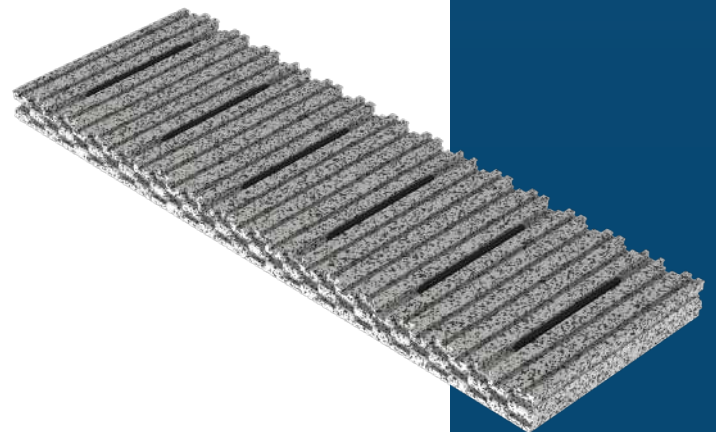


SPYROGRIP[®] SOLETTA

FOR INSULATED SOLID CONCRETE SLAB



The system for
creating insulated
solid reinforced
concrete slabs



PONTAROLO[®]
ENGINEERING



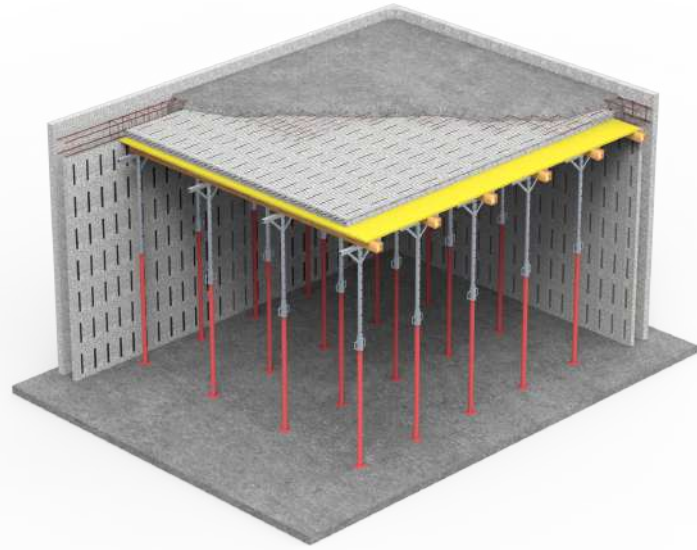
What is Spyrogrip Soletta?

Spyrogrip Soletta is the panel system that allows you to create solid floor insulated reinforced concrete slabs in a single step, without the use of dowels.

The Spyrogrip Soletta panels are in **high-performance Twinpor™ EPS** material and form a continuous and constant insulating layer under the raised concrete slab, guaranteeing excellent thermal insulation and allowing easy installation of the electrical cables.

The monolithic slab, on the other hand, thanks to its high mass, provides excellent thermal behavior in the summer. The panels have a special conformation with grooves anchoring to the concrete, which allow them to be laid directly on the formwork before casting.

Spyrogrip Soletta panels are also mutually connecting with interlocking teeth on the sides, guaranteeing perfect flatness and preventing the percolation of the concrete.



The panels are available in two versions:



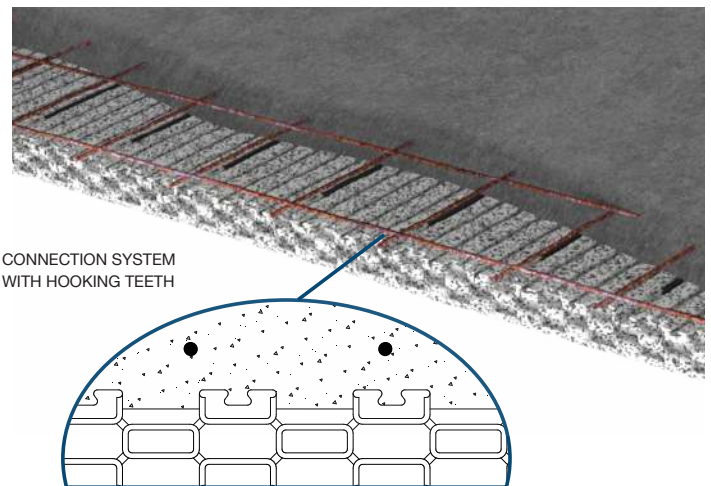
Spyrogrip Soletta: ideal where you need to finish a cement plaster.



Spyrogrip Soletta Indoor: with incorporated braces made of recycled plastic, to anchor the countertop directly to the panel;

The advantages of Spyrogrip Soletta

- **Quick installation** on the formwork by laying and interlocking the panels together without the need of dowels;
- **High thermal insulation** thanks to the high-performance Twinpor™ EPS material and the various thicknesses of the panels available;
- The **solid slab**, thanks to the uniformity of the thickness and its mass, contributes, in combination with an appropriate acoustic insulation layer, to achieving an excellent level of acoustic comfort and thermal inertia.
- **Great mechanical anchoring** to the concrete thanks to the grooves of the panel. No need to apply the insulation layer with glue or dowels, saving time and money.
- **No grout leakage** and **perfect flatness** thanks to the interlocking system between the panels;
- Panels also available with improved compressive strength: EPS 100 or EPS 150 (kPa);
- **No need for drywall structure:** the drywall panels can be fixed directly on the Spyrogrip Soletta plastic inserts;
- **Electrical cables** can be **easily installed** inside the EPS layer by making the traces with a hot knife;
- If used with the Climablock wall system, the insulation is continuous on the wall-floor node, **avoiding any thermal bridge**.



Spyrogrip Soletta Data Sheet - with inserts



The use of Spyrogrip Soletta Indoor (with brackets) is ideal where I need to create a false ceiling.

SPYROGRIP SOLETTA INDOOR

thickness (cm)	6,4		9,4 ⁽¹⁾	
Dimensions (cm)	120 x 40		120 x 40	
Compressive strength kPa	100	150	100	150
Weight (kg)	~0,93	~1,14	~1,19	~1,48
TRANSMITTANCE U (W/m ² K)	0,502	0,494	0,341	0,336
Water absorption %	≤ 5,0	≤ 5,0	≤ 5,0	≤ 5,0
Declared thermal resistance (R _d) m ² K/W	1,95	2,00	2,90	2,95
Declared thermal conductivity (λ _d) W/(mK)	0,0321 (0,033)	0,0316 (0,032)	0,0321 (0,033)	0,0316 (0,032)
Resistance to water vapor diffusion (μ)	30÷70	30÷70	30÷70	30÷70
Euroclass of reaction to fire	E	E	E	E

Inserts made of 100% recycled and recyclable polystyrene, already inserted in the panel. The inserts are used as a screwable support for the drywall panels with a tear-tested value.

⁽¹⁾This thickness includes inserts entirely incorporated into the EPS and marked with a printed outline on the outside of the panel. The screwable inserts are positioned 3 cm from the external side of the 9.4 cm thickness panel; Use screws of adequate length.

Note: It is advisable in any case to have the opinion of an expert to choose the correct size of the thickness of the insulation and the stratigraphy of the slab in order to avoid any condensation and thus ensure an adequate level of comfort and a correct thermo-hygrometric behavior of the slab.

Item specifications

Construction of a reinforced concrete slab, thermally insulated, carried out with the application of insulating disposable formwork like Spyrogrip Soletta of Pontarolo Engineering S.p.A. of San Vito al Tagliamento, characterized by steel reinforcement and concrete cast as per executive project.

Thickness of the monolithic reinforced concrete slab equal to ... cm.

Thickness of the insulating panels of ... cm, made of EPS CS (10) 100 (or "EPS CS (10) 150") Twinpor black and white material characterized by improved performance, anti-glare color, fire reaction Euroclass E (self-extinguishing), thermal conductivity equal to or less than 0.0321 W / mK (or "0.0316 W / mK" for EPS CS (10) 150) and resistance to water vapor diffusion between 30 and 70.

The panels should be made from injection molding and shaped with omega grooves on the surface facing towards the concrete cast of the slab for perfect anchoring with the concrete and with coupling teeth along the two longer edges of the panels to facilitate and guide the mutual coupling.

The formwork panels will allow to reach a thermal transmittance value U = W / m² * K (value referring only to EPS panels and calculated considering the declared thermal conductivity of the material). In the case where a drywall finishing is applied, the insulating panels will have at the intrados of the slab 6 inserts in regenerated plastic co-molded with the panels, regularly arranged every 20 cm, visible from the external surface of the 6.4 cm panels and marked on the panel for the other thicknesses and suitable for fixing the finishing panels with screws. The insulating panels must comply with the CAM requirements and be equipped with the relevant declaration.

As they are not self-supporting, to ensure safe walkability during the installation phases and the relative concrete casting, it is necessary to create an adequate continuous formwork that covers the entire surface on which the EPS panels will be laid.

Including special pieces, cuts and waste, freights and anything else in a workmanlike manner, excluding the finishing at the intrados of the slab.

MEASUREMENTS: per square meter of executed floor, measured on site deducting only the holes greater than 4 square meters, in this case the lateral surfaces of the holes are also counted for their execution cost compensation.

Slab with Spyrogrip Soletta cm, insulated and without finishing PRICE: € / sqm

Assistance

Our technical department provides technical assistance from the design phase to the construction phase. Contact us at: assistenza@pontarolo.com