



**The aerated
flooring system
up to 250 cm**



PONTAROLO[®]
ENGINEERING

Via Clauzetto, 20
33078 San Vito al Tagliamento (PN)
Tel. + 39 0434 857010
Fax + 39 0434 857014
e-mail : info@pontarolo.com
www.pontarolo.com

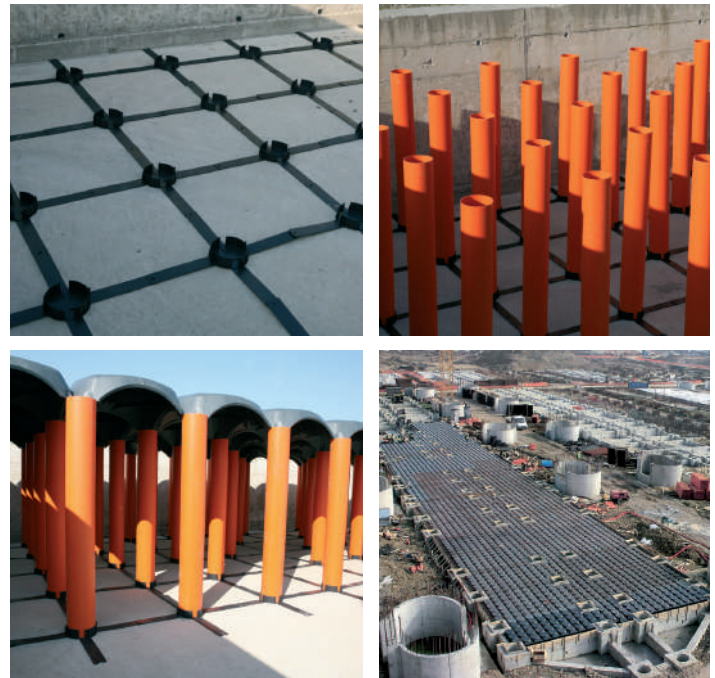
Aerated flooring system for heights up to 250 cm constituted by Cupolex dome, pipes and base that quickly connected the one to the other compose a structure suitable for receiving poured concrete.

What is Cupolex Rialto

Cupolex Rialto is a forming system for providing an easy, efficient and fast solution for constructing an aerated floor with heights from 50 cm to 250 cm. This cutting edge forming system comprises of Cupolex Rialto domes, pipes and bases that quickly interlock and connect to each other composing a self bearing structure ready for the placement of a concrete slab.

The elevated Cupolex Rialto slab supported by the matrix of columns formed by the pipes allows the system for high load-bearing capacities and the elevated Cupolex Rialto structure creates a hollow space for a ventilation under the floor. The recycle of air, that is formed below the slab, conveys the humidity and any radon gas, outside the buildings.

With Cupolex Rialto the living is healthier and brings benefits for the duration of the building. Cupolex Rialto is an ideal product to be used for renovation, instead of using gravel material for raising the deck.



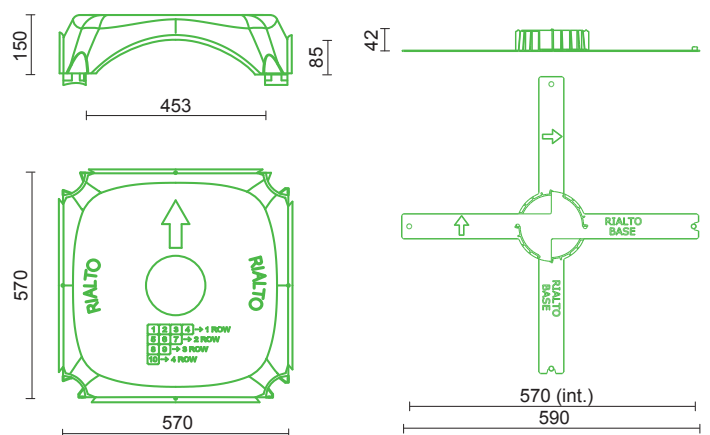
Good reasons for using Cupolex Rialto

- Waterproofing against moisture.
- Ventilation in all directions.
- Healthiness in the living.
- Conveys humidity moisture and radon gas outside the building.
- Economical and easy installation.
- Top finishing possible with carpet, parquet floors and tiles.
- Very high bearing capacity, even concerning industrial overloads.
- Air heating and conditioning to floor-level.
- Provides space for running services (ductwork, cables, etc.).
- Hollow spaces for inspections.
- Adapts any types of plan.
- High safety, supports walking on product before concrete placement.
- Dome made of recycled plastic.

Materials required for 1 m²

- 3 Rialto Bases;
- 3 Rialto Pipes of 125 mm in diameter;
- 3 Cupolex Rialto units;
- 0,035 m³ of concrete consumption for each linear metre of the height of the pipe;
- 0,022 m³ of concrete consumption top of dome;
- welded wire mesh type as to design specifications;
- 0,01 m³/m² of concrete for each cm of concrete above.

Dimensions



Voce di capitolato Cupolex Rialto

Form a reinforced concrete floor slab with an aerated sub-slab void by installing CUPOLEX RIALTO plastic stay-in-place concrete forms by Pontarolo Engineering SpA of San Vito al Tagliamento on a prepared base. CUPOLEX RIALTO forms are composed of a basic grid, 125 mm diameter PVC pipes cut to right height and top dome elements with plan dimensions of 57x57 cm and a total height of the system of cm, all assembled on site, according to the supplier's instructions. Class C..... concrete is placed on the interlocking forms to form columns with a centre-to-centre spacing of 57 cm each way.

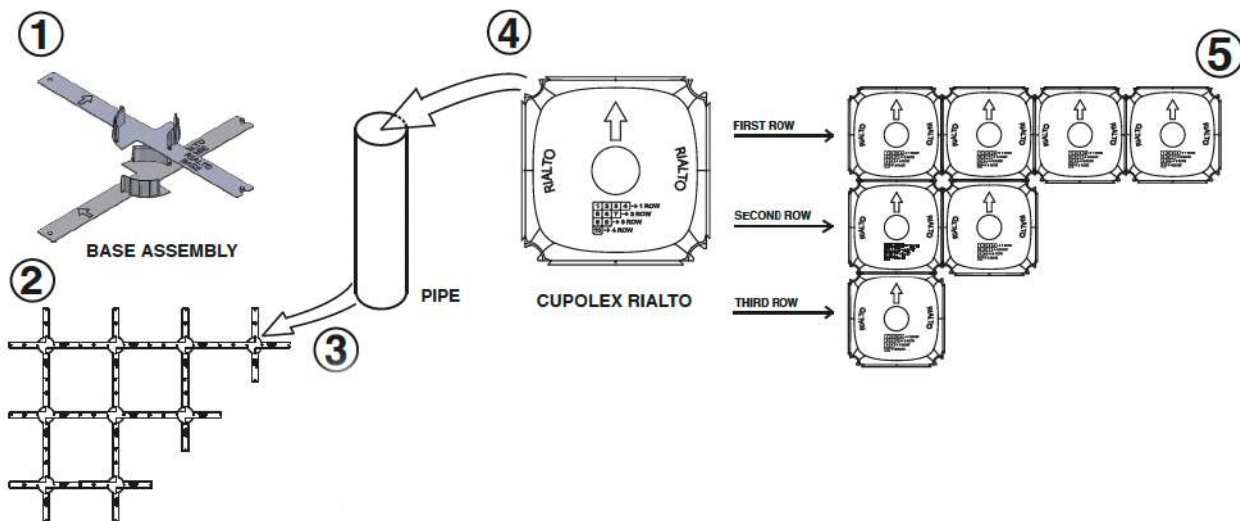
Price including the placement and finishing of concrete and any other charges and specialist work to ensure completion in a manner consistent with the level of care normally exercised by other skilled contractors in the community (excluding reinforcing steel and the preparation of the base below the forms):

MEASUREMENTS: per square meter of floor slab as measured on plan.

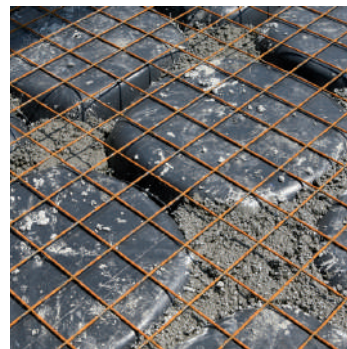
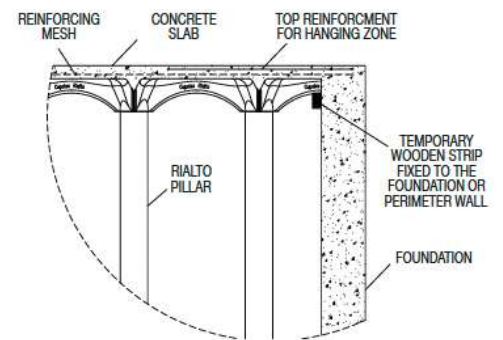
CUPOLEX H cm with concrete thickness of cm

PRICE: €/sqm.

Placement



1. Assemble the base with the two elements as shown on picture 1;
2. Connect the assembled bases in order to obtain the alignment grid;
3. assemble the bases on the prepared subbase horizontally in rows starting from left to right and top to bottom, with the arrows on the bases pointing up and to the right;
4. put the pipes into the cup of the bases till they are completely inserted;
5. place the Rialto domes on pipes horizontally in rows starting from left to right and top to bottom;
6. cut the element cupolex all along the perimeter and take care that it sits on the edge of a temporary wooden strip fixed to the foundation or perimeter wall. Check whether the Cupolex Rialto domes lean correctly against the containment walls and the dome flooring system is ready;
7. Reinforce, if necessary, part of the hanging slab with additional reinforcement placed on top of the slab;
8. Pay attention when walking on Cupolex Rialto especially along the edge.

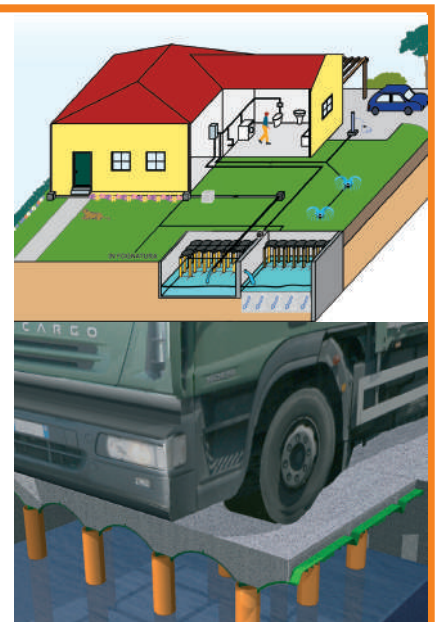


Cupolex Rialto slab for tanks and drought-beating rainwater storage

- Once optional, rainwater harvesting is now a necessity and choosing a Cupolex Rialto system is a major step in securing water for your building site. They are discreet and do not encroach on living areas.

Good reasons for build a Cupolex Rialto Slab Tank

Cupolex Rialto slab tanks and cisterns offer drought-beating rainwater storage that's out of sight and doesn't take up valuable real estate. Available in almost any capacity, Cupolex Rialto slab tanks and cisterns are hidden within the slab of the building, under parking areas or beneath landscape areas, allowing you to harvest, store and use your rainwater around the home or building without restriction. Cupolex Rialto slab tanks and cisterns are economical, fast and simple to construct. Cupolex Rialto slab tanks don't require deep holes or shoring which can be costly and messy, or cause interruptions or risk workplace safety on the building site.



Common dimensions

The following table contains the dimensions of the required metal reinforcement for the most common applications with: soil Winkler constant of 1 kg/cm³ and 10 cm of lean concrete.

PURPOSE OF THE STRUCTURE	PERMANENT DEAD-LOAD (Kg/m ²)	LIVE LOAD (Kg/m ²)	SLAB THICKNESS (cm)	METAL REINFORCEMENT
Residential buildings	200	200	5	ø 5/20x20
Offices	200	300	5	ø 5/20x20
Garages	300	700	6	ø 6/20x20
Industrial buidings	300	1200	6	ø 8/20x20
Industrial buidings	300	1600	7	ø 8/15x15

Structural Resistance

Slabs realized with Cupolex Rialto have been tested in collaboration with the CNR and the University of Padova and the results implemented in the code of calculation "Easy Cupolex".



Walking Support

The elements Cupolex have been tested to support a load of 150 daN applied on plate of 5x5 cm set on the top of the element.

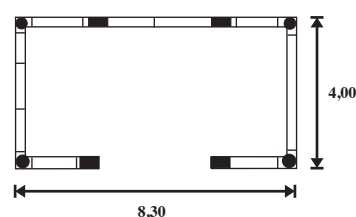


Technical assistance

Our Technical office is at your disposal to give you assistance during your project. E-mail us your drawing of foundation in .dwg or .dxf at the following address:

assistenza@pontarolo.com

You give us



We give you

