4 Check-in

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# MATRIX



## **CONCRETE FLOATING FLOOR**



GeoplastGlobal.com

## THE CONCEPT



New design requirements for buildings drive the rise of new technologies and construction solutions, aimed at meeting the demands of construction sites and becoming new standards in their target markets.

The study of ongoing changes in the construction industry, increased demand of safe, customizable and low-impact solutions has led to the conception of product MATRIX.



The monolithic concrete casting above the MATRIX system, allows to completely isolate the flooring and the MEP from possible internal fires.



The MATRIX concrete slab has a load-bearing capacity up to 1 T/  $m^2$  apt for heavy-load vehicles passage; the product is treadable during installation





MATRIX is designed in order to meet the needs of all parties involved in the design, construction and use of the building, allowing high flexibility in the design phase as well as in the actual installation.

# **THE SOLUTION**

With MATRIX, a high-load bearing slab in reinforced concrete is cast to house cable trays for the laying of mechanical, electrical and plumbing (MEP) and other utilities.

The preliminary installation of the MATRIX base grids, helps technicians in the tracing of the systems, simplifying the laying of the cable trays. After laying the MEP, the system is closed on top with the Matrix upper dome, steel wire mesh is laid over it, and finally the top concrete slab is cast.

MATRIX is suitable for all buildings with large areas requiring flexibility in the installation and management of MEP systems, combined with a high load-bearing capacity.

HOSPITALS AIRPORTS DATA-CENTER CRUISE TERMINAL TERTIARY SECTOR BUILDINGS SHOPPING MALLS METRO/RAILWAY STATIONS CONTROL ROOM AND WHITE ROOM



max 30 cm H12 cm max 40 cm

#### **CONCRETE FLOATING FLOORING**



MATRIX base grid facilitates the technicians work by creating a map to guide the utilities installation.



The laid grids facilitates the installation of pipes for cables and wiring.



Simplification in the laying of large surfaces areas thanks to the fast and precise installation of the system without the aid of laser instruments.



The final result is an high load-bearing, safe and fire-resistant flooring.



# INSTALLATION

**MATRIX BASE GRID INSTALLATION** 

Fast and safe laying, without ground fixings that slow down the installation and damage the support surface. The grids laid on the ground create a clear mapping of the areas available for the passage of the utilities. They are coupled with each other thanks to a pressure hooking system that guarantees precise assembly.





The grids play an important role as spacers, avoiding direct contact between the ducts and the support surface. This detail prevents corrosion phenomena contributing to ensure the integrity of the flooring over time.



## LAYING OF MECHANICAL, ELETRICAL AND PLUMPING

Utilities cables housing according to the project specifications.



LAYING SEQUENCE WITH 2 OVERLAPPED CABLE TRAYS





#### Load bearing capacity: CLASS 6 costant



#### Load bearing capacity: variable





## FLOORING VERSATILE AND CUSTOMIZABLE

The raised area is seamless and is suitable in any context, even in case of future changes of destination of use for the building. MATRIX works with standard market accessories such as power distribution towers, telephone lines, access doors, grids, etc. The ample flexibility offered in the choice of top finishing is an added advantage offered by MATRIX to designers and final users.



## **ACCESSIBLE TECHNICAL COMPARTMENT**



MATRIX allows the creation of on-site inspection wells for the technical compartment access.

The wells allow the installation of the main cable boxes available on the market.



## **EXCELLENT ACOUSTICS**



Elimination of footsteps and rumble sound compared to traditional floating floors that are known to be affected by the reverberation of the underlying metal structure.



# MATRIX

The decades-long experience of Geoplast in realizing structural systems for the construction industry, has led to the design and development MATRIX.

A universal solution for realizing raised floorings with high load-bearing capacity, suitable for application on all types of building. The system is composed of 2 elements, a top formwork and a four-arm bottom grid, both manufactured in Polypropylene.

## **TECHNICAL DATA**





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