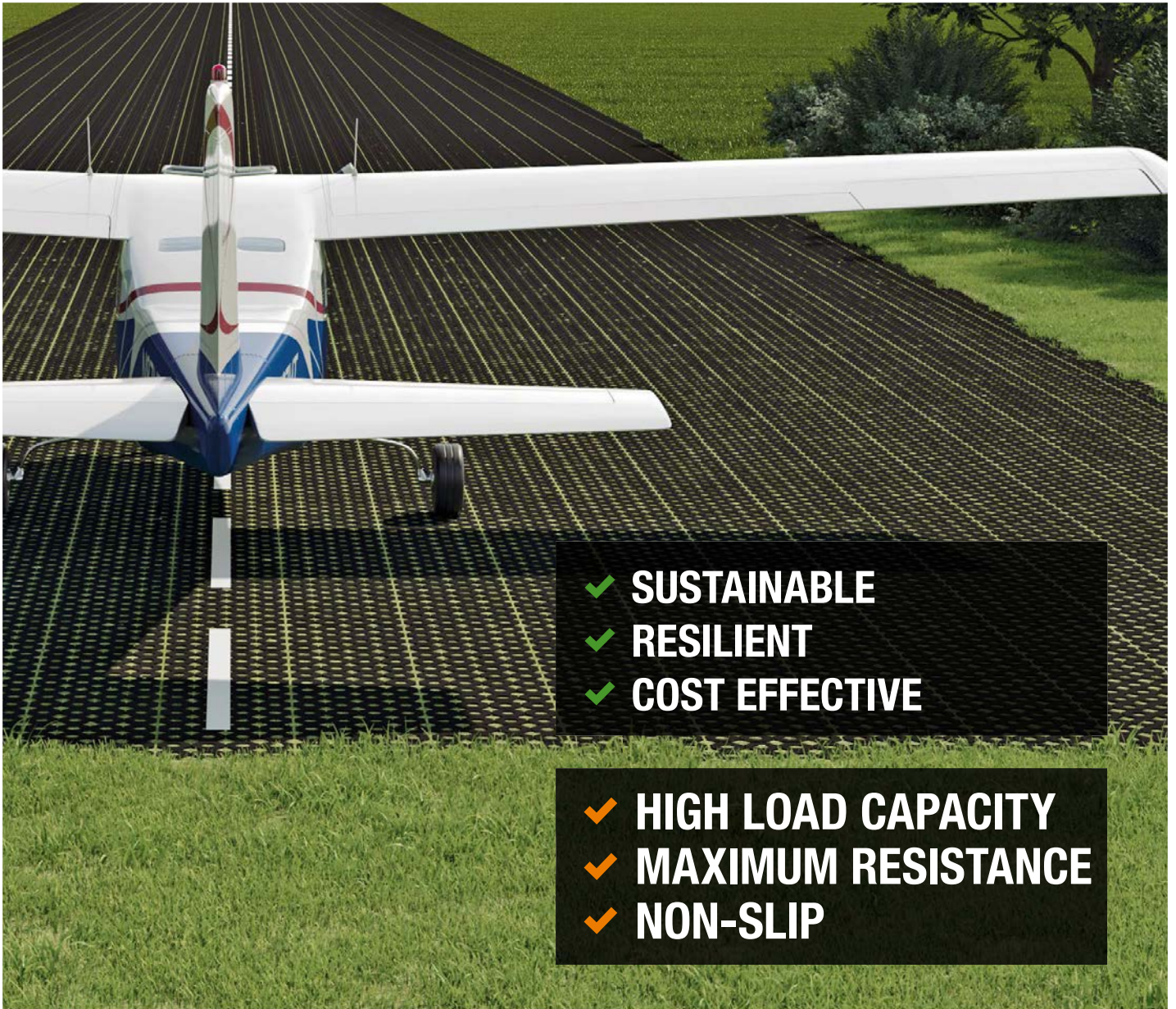




# GEOCROSS



- ✓ SUSTAINABLE
- ✓ RESILIENT
- ✓ COST EFFECTIVE

- ✓ HIGH LOAD CAPACITY
- ✓ MAXIMUM RESISTANCE
- ✓ NON-SLIP

**PAVERS FOR AIRFIELDS  
AND ALL-VEHICLE SURFACES**



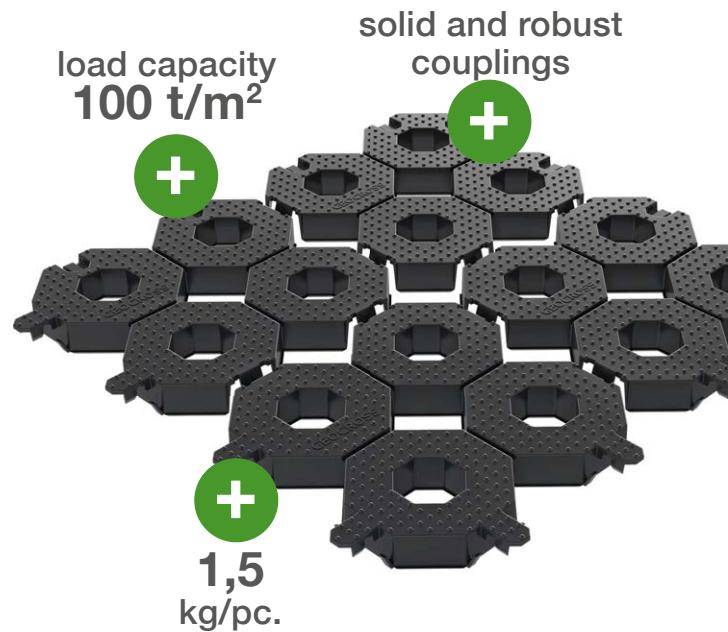
# THE SOLUTION

Geocross is a paver made on regenerated plastic materials for the creation of airfield- and drivable-surfaces.

The grid is designed for soil stabilisation with simple installation on existing grass surfaces and embedding into the soil by means of rolling.

Coupling with the soil will ensure optimal performance, and its embossed surface will provide an excellent grip.

When Geocross is well rolled in the ground it creates a surface that allows great stability and excellent rainwater permeability over time.



**PATENTED**

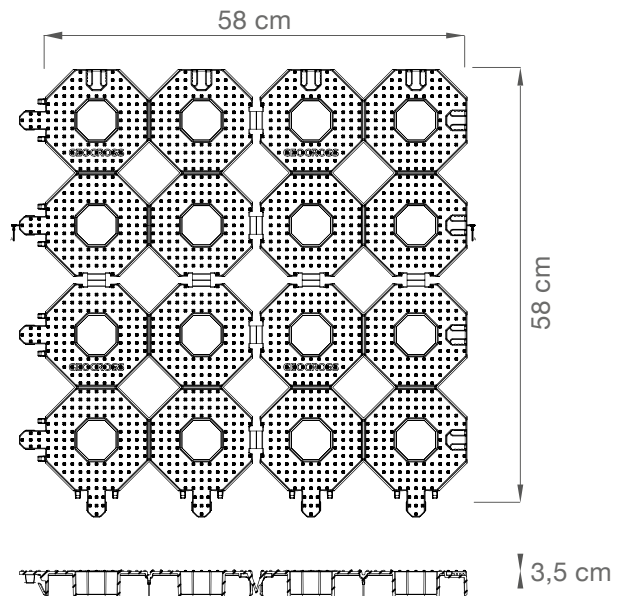
- AIRFIELDS
- LIGHT AIRCRAFT
- GENERAL AVIATION RUNWAYS
- ACCESS TO SERVICE VEHICLES
- DRIVING AND TRANSIT AREAS

The 60% closed surface allows to Geocross to “float” on soft ground and distribute the load applied by the wheels of vehicles in transit preventing them from sinking into the soil.

In addition to giving the correct support to light aircraft during landing and take-off, it allows access to the runway for light road vehicles that can be used for maintenance, support and rescue.

## TECHNICAL DATA

Dimensions (cm)	58 x 58 x H3,5
Material	Gralene HD Black
Load capacity (t/m <sup>2</sup> )	100*
Weight per piece (kg)	1,50
Packaging size (cm)	120 x 120 x H240
No. of pallet pieces	260
m <sup>2</sup> pallet	86
Colour	Black
Closed surface area	60%



\* The strength and condition of the soil influence the overall performance of the system..



# INNOVATION IS KNOWING HISTORY



During the Second World War the allied forces developed a system of perforated and modular steel grids, called “Marston Mats”, which stretched on the ground and joined to each other were used for the rapid preparation of airfields and roads. The Italians called them “grella”, neologism derived from the English term “grill”, i.e. grid.

This paving system, among the great innovations emerged during the Second World War, was equipped with large holes that allowed perfect anchoring in the ground and was also used by military vehicles to cross impervious and marshy areas.

Over the decades, technological evolution and the development of new materials have led to a slow decline of the “grella”, now too bulky and not very suitable for the new needs.

## THE CONCEPT

Geoplast, drawing on its long experience of grass- and grave-pavers, redesigned the “grella” in a modern and sustainable way. He did it interviewing aviators, aircraft enthusiasts and engineers specialized in the design of runways.

The product took shape taking inspiration from the classic metal grid, following the different phases of the process of innovation with the aim of meeting the needs of modern aircraft.

Geocross is a modular square tile (58x58 cm) for ground reinforcement and for airfields. Extremely light and easy to handle, it can be handled and installed by one man.

The octagonal holes in each single grid facilitate rainwater drainage, avoid water pooling on the track and allow grass to grow inside them. Furthermore they contribute to the elasticity and low weight of the element.

It can be used in all weather conditions as it is made of regenerated plastic material, UV and corrosion resistant.





# ADVANTAGES



Geocross is an innovative outdoor flooring that is installed to create take-off and landing runways that require high stabilization and ground permeability.

**100%  
GRIP**

## NO-SLIP SURFACE

The surface is provided with embossed texture that guarantees greater grip and therefore greater adherence during vehicles transit, even in the presence of water or mud.

The surface of Geocross has been designed for a comfortable and safe transit.



## HIGH LOAD CAPACITY

The flooring distributes the loads and does not risk structural soil failure or breakage as it “floats” on the ground.

The hollow structure of the element allows it to fit firmly into the soil, creating a uniform and usable surface.

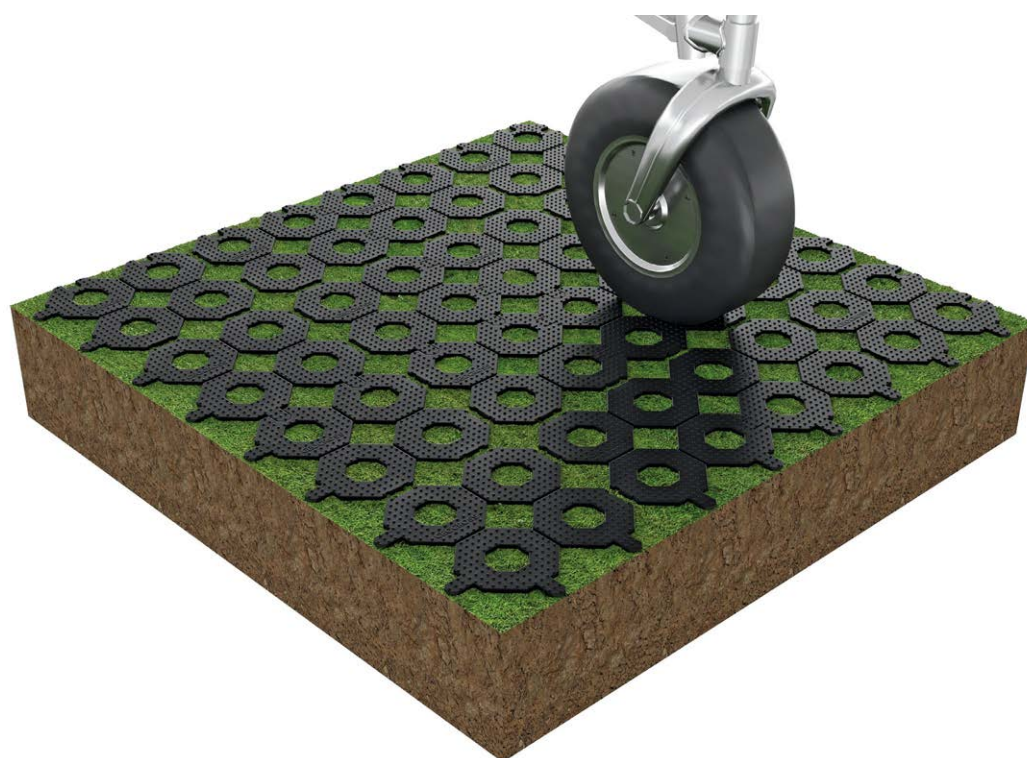


## SOIL STABILIZATION

Geocross is a non-invasive solution for the improvement of heavy and waterlogged soils. Wet weather will turn soft soils into mud fields, making use of the surface quite challenging.

Variation in temperature and the level of water saturation cause soil expansion and shrinkage. Geocross incorporates spring-like elements that allow it to follow these variations naturally without compromising the integrity of the flooring.

# GEOCROSS STRUCTURE



## FREQUENCY OF USE

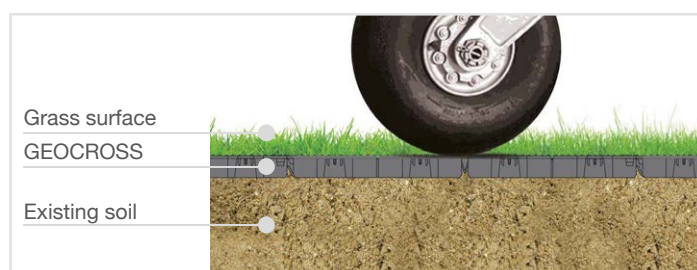


## LOAD CAPACITY



A good taxi ways, take-off and landing surface improves the safety of the airfield, preventing mud from splashing from the ground onto the aircraft's wings.

## INSTALLATION REQUIREMENTS



### AIRCRAFT

- Installation should only take place when the ground is soft enough to ensure that Geocross can be easily rolled into the ground.
- Cut the grass before laying geocross on the existing grass surface.

Geocross flooring was designed as a non-slip paver system that delivers a minimally invasive installation that is easily integrated in all green areas.

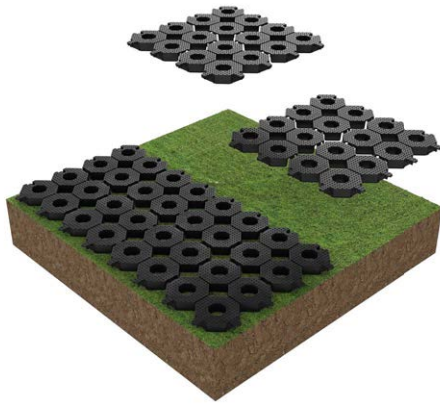
Geocross is aimed to a specific public, general aviation, with the mission of ensuring a safe year-round use of runways and every other airfield surface, even in bad weather conditions.

The paver can also be used in disaster relief situations, for example for temporary airfields for rescue-, transport, and military aircraft.



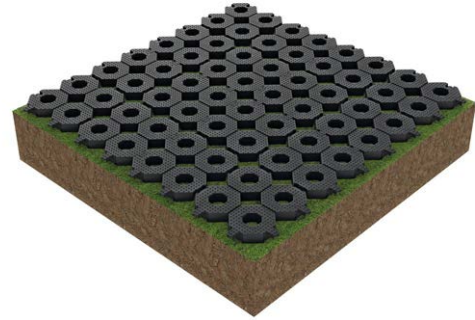
# INSTALLATION PHASES

The installation of Geocross is innovative compared to the usual grass pavers as no excavation has to be carried out for the laying of the elements and neither preliminary preparations of the substrate.



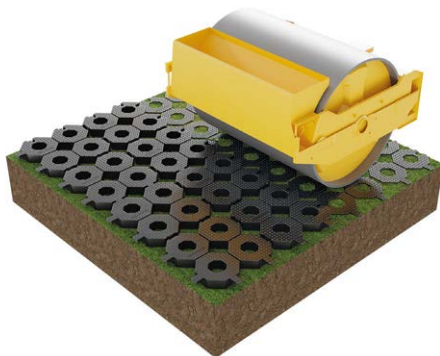
## ① LAYING THE PAVERS

Lay the grids on the existing lawn respecting the correct positioning of the hooks.



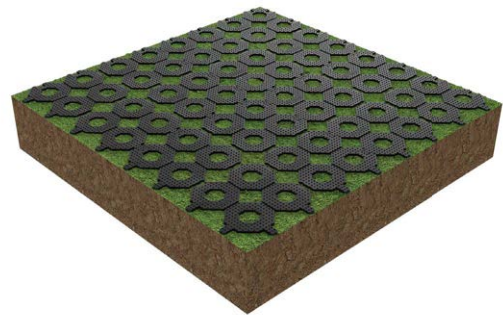
## ② FASTENING THE PAVERS

Once the affected area has been laid, proceed with the hooking of each individual grid.



## ③ ROLLING-IN THE PAVERS




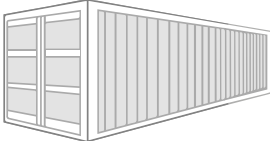
Press the flooring with a rammer roller (or vibro compacting roller) so that the grids penetrate into the existing soil.



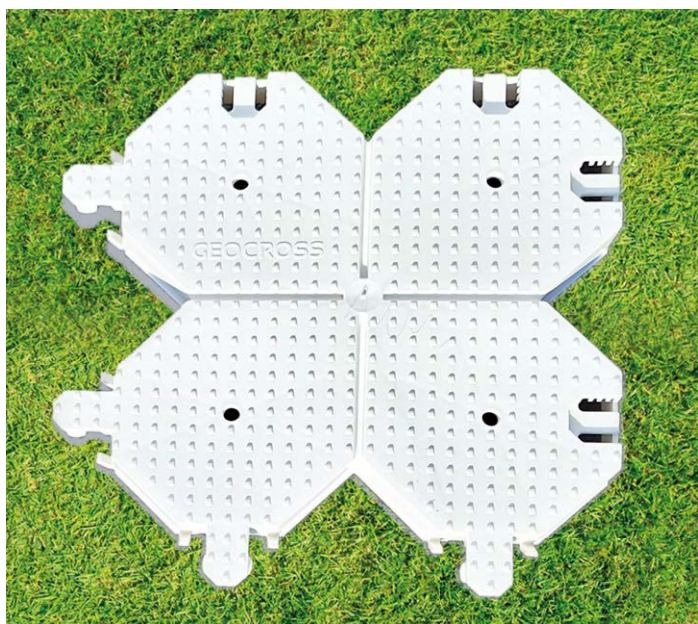
## ④ FINISHED SURFACE

Uniform anti-slip surface with high bearing capacity for green areas.

# PACKAGING AND LOGISTICS

PALLET cm 120 x 120	LORRY (13,6 m)	CONTAINER 20 BOX	CONTAINER 40 HC
86 m <sup>2</sup>	2080 m <sup>2</sup>	651 m <sup>2</sup>	1620 m <sup>2</sup>
			

# MINI GEOCROSS



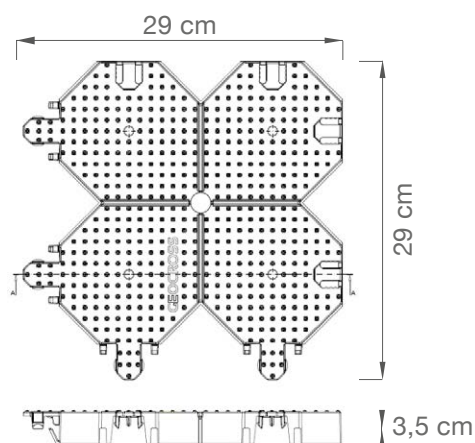
The runway marking in accordance with the regulations for grass runways (ICAO Annex 14) can easily be made with MINI GEOCROSS: directional numbers, mid-runway and centre lines, as well as for taxiways and parking areas.



## TECHNICAL DATA

Dimensions (cm)	29 x 29 x H3,5
Material	Gralene HD (Polyethylene Compound)
Load bearing capacity* (t/m <sup>2</sup> )	100*
Weight per piece (kg)	0,34
Type of packaging	Stacked on pallet
No. of pallet pieces	480
Colour	White - Black
Closed surface area	98%

\* The strength and condition of the soil influence the overall performance of the system.





# INSTALLATION



Geocross grids are stored in sheets of four pieces and stacked on pallets measuring 1.2 x 1.2 m. They are easy to remove from the pallet due to their low weight. The pavers are then placed on the ground and installed very quickly and without the need for cranes or lifting equipment. The Geocross stabilising paver was designed as a system of non-slip plates that allows a non-invasive operation. Furthermore, it can be easily integrated into all green areas subject to more or less frequent vehicle traffic, such as public city parks, campsites, country lanes, rural areas, etc.

## ROBUST CONNECTION

Variation of the moisture content and the temperature of the soil cause expansion and contraction cycles and subject Geocross to cause long-term stress. It is essential for the safety of the surface that it does not become disrupted, this is why the Geocross fastening system is designed to be very robust and reliable.





# ACCESS ROUTES AND PARKING



Geocross is aimed at a wide public that needs to develop a sustainable urban model and redevelop green areas that are abandoned and difficult to put into use.

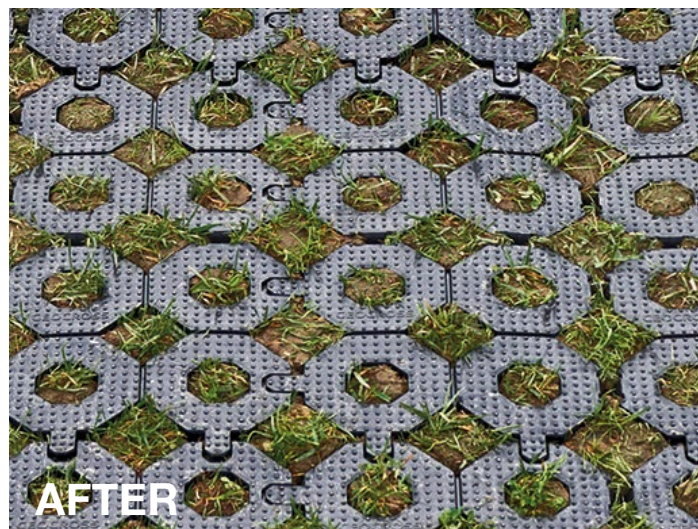
Our focus is to convert green areas into usable and drivable areas while always maintaining the principles of permeability and biodiversity that nature demands of us.

The Geocross stabiliser pavers were designed as a system that is easily and seamlessly integrated in all green areas subject to the more or less frequent passage of vehicles, such as public parks, camping sites, country roads, rural areas, etc.

## BEFORE AND AFTER COMPACTION

The laid and hooked paving remains on the surface.







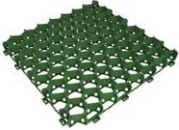


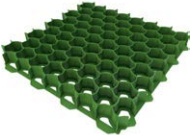














To complete the installation process, the pavers must be pressed into the ground using a roller compactor machine.















# PRODUCT SELECTOR

## GRIDS - Permeable paving grids for grass or gravel

	MATERIAL	SOLUTIONS	FREQUENCY OF TRANSIT	TYPE VEHICLES
<b>RUNFLOOR</b> 	Gralene LD (Recycled Polyethylene Compound)	Lanes for fire fighting vehicles, high frequency parking lots for buses and cars, lay-by for trucks, heliports.		
<b>GEOFLOR</b> 	Gralene LD (Recycled Polyethylene Compound)	Lanes for fire fighting vehicles, high frequency parking lots for buses and cars, lay-by for trucks, heliports.		
<b>GEOGREEN</b> 	Gralene HD (Recycled Polyethylene Compound)	Driveways, driveway lawns, pedestrian walkways.		
<b>SALVAVERDE</b> 	Gralene HD (Recycled Polyethylene Compound)	Private driveways car and camper parking, lay-bys, pedestrian walkways.		
<b>GEOGRASS</b> 	Gralene HD (Recycled Polyethylene Compound)	Private driveways car and camper parking, lay-bys, pedestrian walkways.		
<b>GEOGRAVEL</b> 	Gralene HDVN (Polyethylene Compound)	Private driveways car and camper parking, lay-bys, pedestrian walkways.		
<b>GEOROAD</b> 	Gralene LD (Recycled Polyethylene Compound)	Roadside, bicycle paths, access areas.		
<b>GEOCROSS</b> 	Gralene HD (Recycled Polyethylene Compound)	Car Parks, access roads, soft and unstable ground, runways, landing strips and taxiways for airports.		

**KEY:**

FREQUENCY OF TRANSIT	PEDESTRIAN	DISABLED	GOLFCAR	AUTO	SUV	VAN	EMERGENCY VEICHLES	TRUCK	GENERAL AVIATON
									



# PERMEABLE PAVER REFERENCES

Our permeable paving solutions adhere to the principle of hydraulic invariance and ensure that the soil keeps on performing just as it its natural state.

Our team of engineers is always available, both during the initial planning stages and during the installation of the pavers.



**RUNFLOOR, 500 m<sup>2</sup>**  
**LIDL SUPERMARKET OUTDOOR AREA,**  
**BRESCIA, ITALY**



**GEOFLOR, 1000 m<sup>2</sup>**  
**CAMPO DEI MIRACOLI, PISA, ITALY**



**GEOGRAVEL, 600 m<sup>2</sup>**  
**Fédération Départementale**  
**des Chasseurs de la Loire**  
**ANDRÉZIEUX-BOUTHÉON, FRANCE**



**SALVAVERDE 500 m<sup>2</sup>**  
**Guest car-park**  
**VILLA TACCHI, PADOVA, ITALY**





**Geoplast**  
Building beyond together

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