



# geog gravel

in balance with nature



- STABLE AND RESISTANT UP TO 400 t/m<sup>2</sup>
- NATURE-FRIENDLY
- PERMEABLE







# GEOGRAVEL

THE IMPORTANCE OF WATER PERMEABILITY

## MICRO-PERFORATED GRID

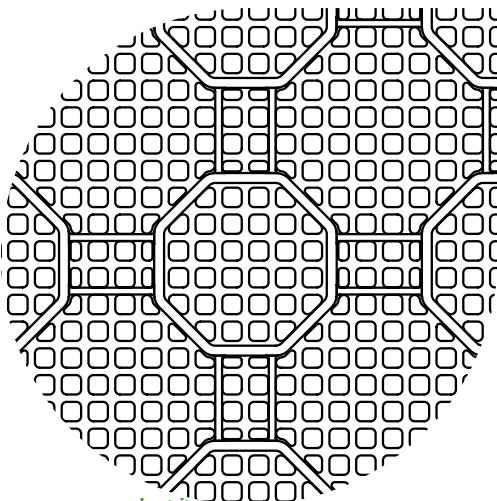
Permanently porous, no clogging

## MATERIAL: VIRGIN HDPE

100% recyclable

## CLIP-ON CONNECTION

For great stability



[www.geoplast.it](http://www.geoplast.it)

Geog gravel features a micro-perforated grid united to the cells. This significant innovation creates a supporting surface which retains the gravel while maintaining its porous nature indefinitely, without any risk of clogging.

The regular shape of the cells stabilises the surface making it comfortable for both pedestrians and vehicles of any type.

All elements interlock forming a regular and stable surface; the shape and material were engineered to absorb thermal expansion in order to avoid deformation of the surface at any ambient temperature.

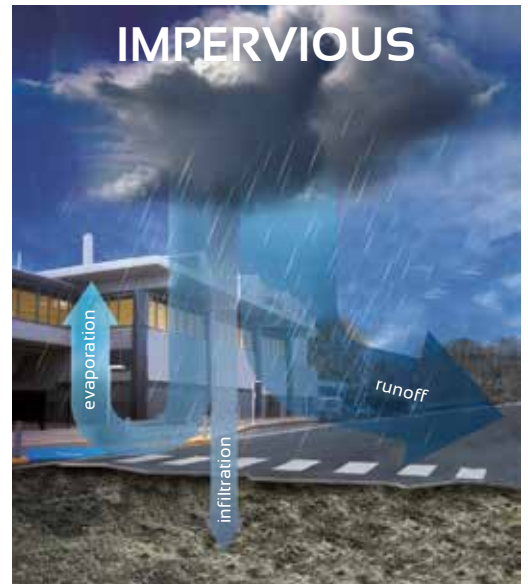
# VISION

Geog gravel is the ideal solution to the increasing cementification of our cities.

Geog gravel was developed in order to create permeable gravel surfaces.

Installing Geog gravel means retaining the qualities of a natural porous gravel surface and at the same time acquiring the comfort and stability of a paved surface.

Geog gravel is technology's answer to Nature's demand for greater respect.



The surface runoff in a green area is approximately 15%, while in built-up areas this rate is 70% of precipitation.







Large parts of land have progressively been concreted over and rendered impervious: the effect of this is a drastic reduction of infiltration capacity of rainwater into the ground and a huge increase of surface runoff. Reckless overbuilding has proved to be the perfect recipe for flooding and general overloading of existing drainage.

**GRAVEL SURFACES ARE THE TRADITIONAL WAY** to create a water-permeable car park or road. Relatively cost-effective and easy to build, on the other hand a gravel surface requires a rather intensive maintenance to remain free from ruts, holes and puddles in rainy weather, and dust during the dry season.

Geogavel will keep the porous surface perfectly firm and stable avoiding all the laborious care and maintenance.



**EXAMPLE 1**  
 Stable permeable gravel parking, perfectly flat.

**EXAMPLE 2**  
 Private gravel walkway, comfortable for the people.



## THE SOLUTION FOR ANY REQUIREMENT

Geogavel is the sustainable response to modern requirements of convenience, comfort and easy maintenance of gravel surfaces.

A gravel paving reinforced by Geogavel is comfortable to walk, ride or drive on. It allows the in situ infiltration of rainwater avoiding excessive runoff and recharging groundwater supplies. Even when installed over naturally impervious soil it is an interesting mitigation solution thanks to the water storage capacity of the gravel contained in the cells.

# GEOGRAVEL ADVANTAGES

## POROUS



PERFECT PERMEABILITY WITH  
THE MICRO-PERFORATED GRID  
(NO CLOGGING)

## DRIVABLE



HIGH LOAD-BEARING RE-  
SISTANCE (UP TO 400 t/m<sup>2</sup>)

## DURABLE



LONG-LASTING RESULT

## COST-SAVING



LOW MAINTENANCE  
COSTS

**1** **C**reate a gravel sur-  
face that will remain  
stable and natural-looking over a  
long time

**2** **G**reat comfort for  
pedestrians, cyclists  
and wheel chairs. High load  
bearing capacity to support for  
any type of vehicle.

**3** **H**igh permeability  
guaranteed

**4** **E**asy and light to lay,  
even on sloping  
ground, thanks to the clips that  
make all grids interlocking

**5** **U**v resistant

**6** **R**esistant to micro-  
organisms and  
aggressive chemical products

**7** **T**he shape of the cells  
and the grid and the  
material chosen to manufacture it  
make Geog gravel very resistant to  
wear and tear.

**8** **100%** recyclable

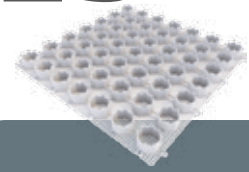
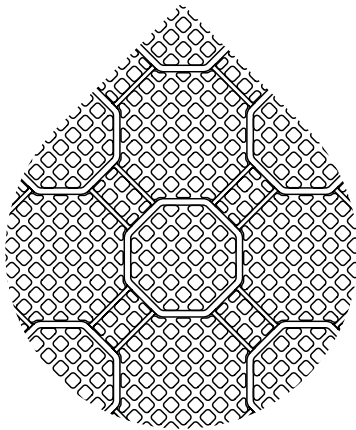
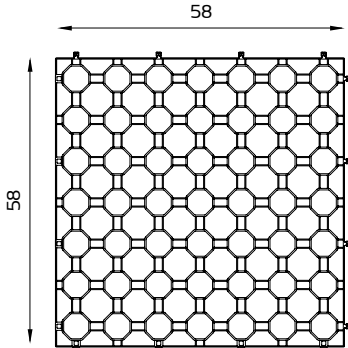


## SAFE AND COMFORTABLE


**GEOGRAVEL STABILIZES THE GRAVEL SUBSTRATE**, prevent-  
ing lateral movement of the  
stones and holding them firmly  
in place.

A non-structured gravel surface  
will shift when under pres-  
sure, being uncomfortable for  
pedestrians, especially when  
wearing high-heeled shoes, but  
becoming right out dangerous  
for bicycles or wheel chairs.  
Geog gravel is the safe and  
environmentally-conscious  
solution to these issues.

# GEOGRAVEL TECHNICAL DETAILS



## GEOGRAVEL HD PE

|   |   |
|---|---|
| SIZE (mm)                                 | 580 x 580   |
| HEIGHT (mm)                               | 30  |
| Grid thickness (mm)                       | 22  |
| Load-bearing capacity (t/m <sup>2</sup> ) | 400   |
| Weight (kg)                               | 0.9   |
| Package dim. (mm)                         |  |
| No. items per pallet                      | 300   |
| m <sup>2</sup> per pallet                 | 100   |
| Colour                                    | Translucent white   |
| Permeability                              | 61%   |

1200 x 1200 x 235

| GEOGRAVEL  | PE HD   |
|--|---|
| Maximum filling volume                             | 0.027 m <sup>3</sup> /m <sup>2</sup>  |
| Diameter of the cells                              | 52 mm   |
| Permeable surface                                  | 61%   |
| Water retention capacity                           | 8 dm <sup>3</sup> /m <sup>2</sup> water = 8 liters /m <sup>2</sup>            |
| Compression resistance                             | 400 ton/m <sup>2</sup> * <small>meets DIN 1072 cl. 5LW60 up to 20 ton</small> |
| Thickness of the micro-perforated base             | 1.8 mm  |
| Diameter of the holes of the micro-perforated base | 5.6 mm  |
| Resistance to external agents                      | Oil, Gas, Acids, Alkalis, Alcohol, Salt, Ammonia, Acid rain, etc.             |
| No. already assembled items per pallet             | 4 items = 1.34 m <sup>2</sup>   |
| No. pallets / truck                                | 22 pallets = 2,200 m <sup>2</sup>   |



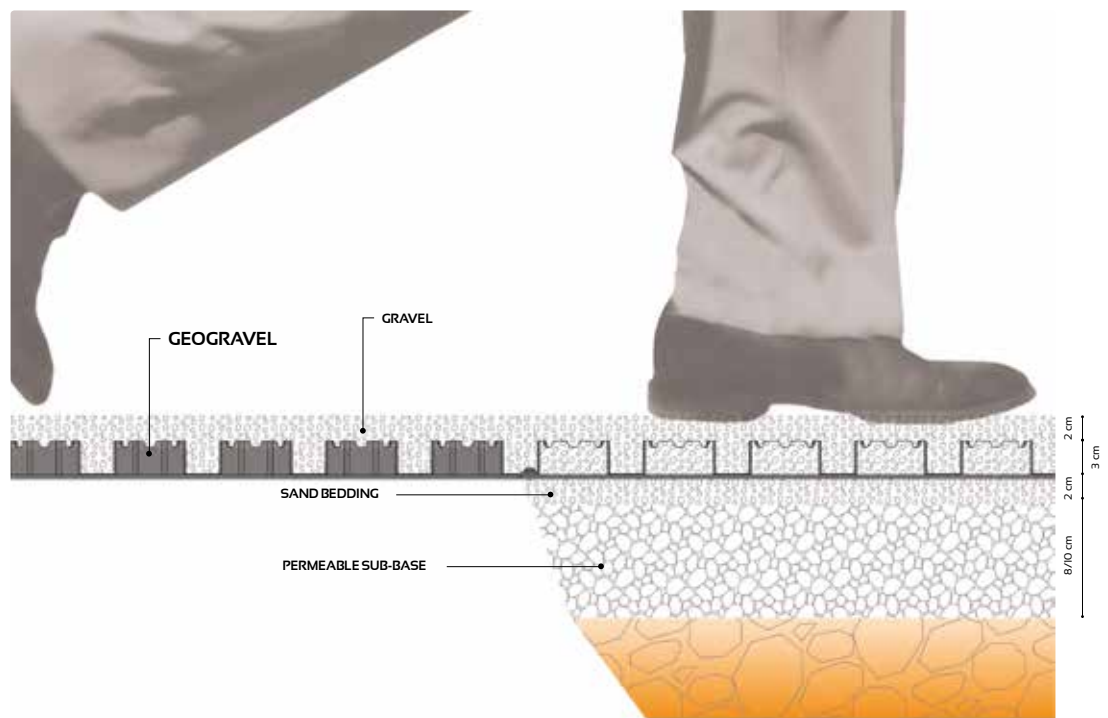
# APPLICATIONS

# INSTALLATION

# INSTRUCTIONS

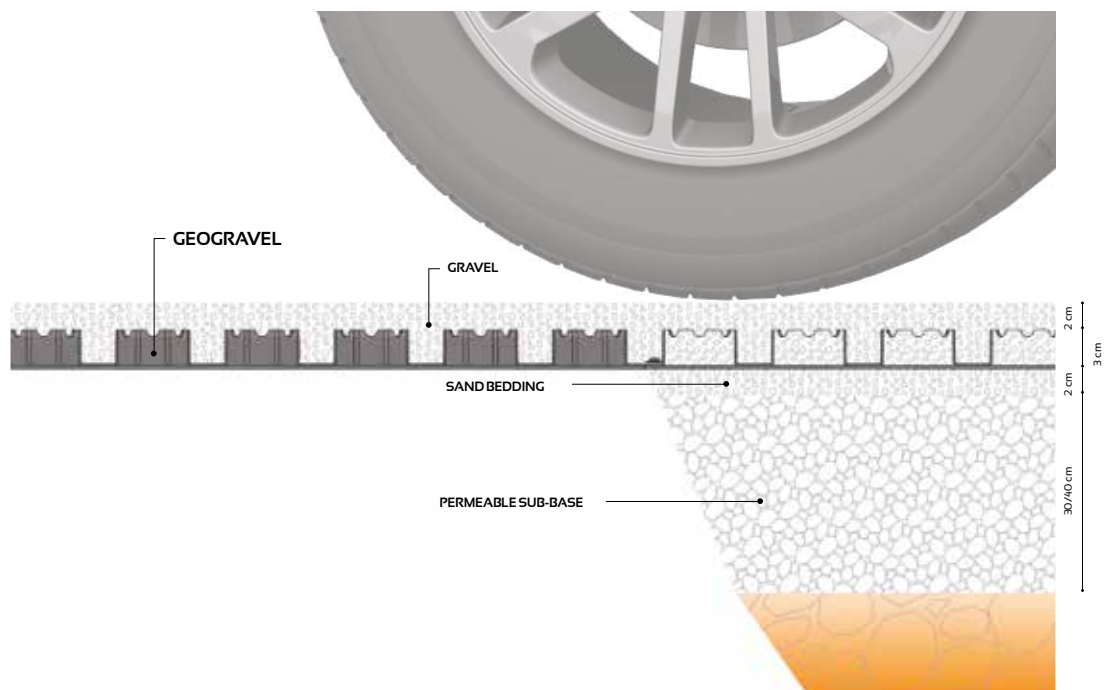
## WALKWAYS, BYCICLE PATHS, DISABLED ACCESS

- 1) Permeable sub-base of 8/10 cm with compacted crushed gravel (crushed limestone, porphyry or crushed concrete), granulometry 5-20 mm\*
- 2) Sand bedding 1-2 cm thick of fine gravel, granulometry 0-5 mm
- 3) Laying of **GEOGRAVEL**
- 4) Filling of the grids with decorative gravel 2 cm over the height of the cells



## VEHICLES

- 1) Permeable sub-base of 18/20 cm with compacted crushed gravel (crushed limestone, porphyry or crushed concrete), granulometry 5-20 mm\*
- 2) Sand bedding 1-2 cm thick of fine gravel, granulometry 0-5 mm
- 3) Laying of **GEOGRAVEL**
- 4) Filling of the grids with decorative gravel 2 cm over the height of the cells



## FIREFIGHTER ACCESS AND HEAVY VEHICLES

- 1) Permeable sub-base of 30/40 cm with compacted crushed gravel (crushed limestone, porphyry or crushed concrete), granulometry 5-20 mm\*
- 2) Sand bedding 1-2 cm thick of fine gravel, granulometry 0-5 mm
- 3) Laying of **GEOGRAVEL**
- 4) Filling of the grids with decorative gravel 2 cm over the height of the cells

\* The thickness of the substrate can vary according to the load-bearing capacity of the natural subsoil.

# CREATION OF GRAVEL CAR PARKS

## ADVANTAGES OF A GRAVEL SURFACE

Permanently porous

Easy maintenance

Material savings

## WHY THE GRID?

No depressions

No lifting of the  
grid or dust

Stability of the  
surface, no clogging



## ■ Requirements for a **correct maintenance**

■ When laying the grid leave a gap of 30-50 mm around kerbs, edgings or other objects to provide room for thermal expansion.

■ In the case of larger surfaces split in areas of about 30 m<sup>2</sup> separated by a gap of approx. 10 mm to act as expansion joints.

■ The gravel bedding must be properly leveled in order to prevent lifting of the surface over time.

■ Fill the cells with 2 cm gravel over the top, so that the grids are always covered by gravel.

■ In case of setting of gravel, add some material in order to keep the grids always covered.

■ GEOGRAVEL can be easily easily trimmed to fit around curbs, pavements and other objects.





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