



# Econogrid 40 GRASS

POROUS PAVER GRASS FINISH



## INSTALLATION GUIDELINES

Econogrid 40 porous grass paver can provide a solution to a wide range of trafficking needs (these may include pedestrian, bicycles, cars, vans and trucks). The application might be a car park, an emergency access route or residential parking. Econogrid 40 grass pavers have been designed, using carefully selected plastics, to meet the demands and loadings imposed across a wide range of end requirements and site conditions.

To ensure Econogrid 40 porous grass pavers operates at its optimum working condition over a long period of time – which could be 20 years or more – Econogrid 40 needs to be installed correctly as per our guidelines described below. All Econogrid 40 plastic paver installations will have some basic requirements to the construction profile.

Some component parts to the profile will need to be designed – please see separate design guidance sheet – to meet the needs of the client but the elementary building blocks are the same.

### Installation steps:

Prior to any work on site, it is highly advisable a site survey – even if only a rudimentary one – is done. Questions like will the site drain naturally, what slopes – if any – need to be allowed for, what type of surface conditions and what type of soils are on site will need to be considered. Also it may be prudent to check if the type of soil on the surface is the same 200 to 400mm under the surface (will draining water be trapped on a nonporous layer?).

**Note:** If there is a slope of more than 5%, where there is a grass finish requirement, it is advisable to enquire for technical advice. Also it will need to be considered that Econogrid 40 porous grass pavers will require an edge retention system / kerb of some kind. This can be substantial as 150mm x 150mm concrete road kerbs through to treated timber or metal stripping. Please refer to design guide or enquire for technical advice.

There are four basic layers to any construction profile.

### 1) The sub-grade

The sub-grade is at the bottom of the profile. This is the layer after removal of the existing soils to the required depth which has been calculated based on the type and frequency of traffic using the soil after installation and the ability of the existing soils to handle imposed loadings. The sub-grade could finish up be as little as 100mm or as much as 500mm below the existing surface. It is advisable that the sub-grade is compacted – by roller or other method – and an even working surface created.

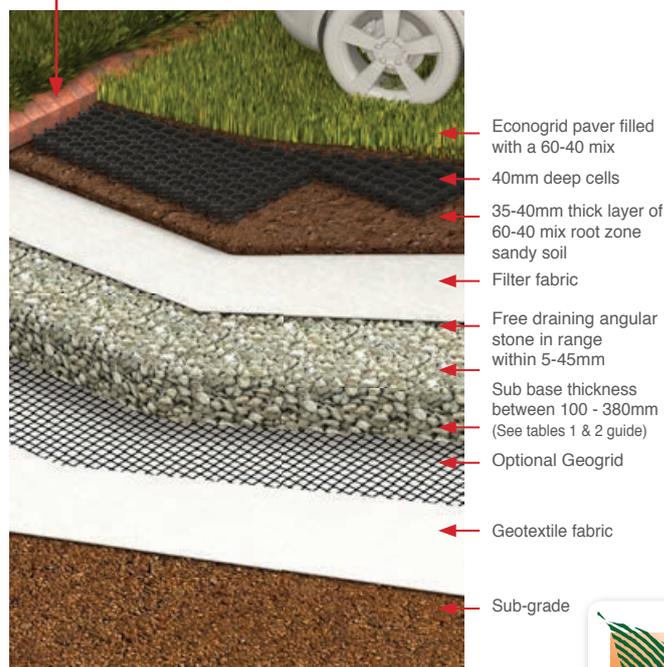
### 2) The sub-base layer

On top of the sub-grade a sub-base layer needs to be installed. The depth of this layer would have been pre-deter-

mined at an earlier date (please see separate design sheet). The sub-base should be composed of a free draining sharp angular fill material (angular stone / aggregate), 95% of which the particle size is of a mixed nature between 5mm to 45mm with reduced fines content which would produce a stable and porous sub-base / hard-core after compaction.

Crushed concrete would be generally unsuitable because of the high fine content and so having minimal porosity and permeability. The sub-base needs to be compacted to the required depth. At the bottom and the top of the sub-base a filter fabric separation layer needs to be installed. The filter fabric will stabilise the sub-base by separating / filtering and so limiting fine material migration into the sub-base while being permeable to allow water to infiltrate. The fines – if allowed in – would cause eventual deformation / dipping of the top surface and drainage issues. On top of the bottom layer of filter

Optional edging kerb



- Optional edging kerb
- Econogrid paver filled with a 60-40 mix
- 40mm deep cells
- 35-40mm thick layer of 60-40 mix root zone sandy soil
- Filter fabric
- Free draining angular stone in range within 5-45mm
- Sub base thickness between 100 - 380mm (See tables 1 & 2 guide)
- Optional Geogrid
- Geotextile fabric
- Sub-grade



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fabric a 30KN geogrid can be applied to reduce the depth of sub-base used and also reduce the amount of spill caused by works. Please see table in the design sheet for guidance. Not all sites will benefit from using a geogrid mainly due to economies of scale. Please contact our technical team for further direction.

#### 3) Bedding Layer

On top of the of the filter fabric covering the angular stone sub-base construction, a layer of approximately 40mm of 60/40 root-zone sandy soil should be placed and compacted. This bedding layer should be no less than 35mm deep to allow good grass root structure to grow and no more than 50mm deep after compaction to avoid possibly compromising the structural integrity of the construction profile. The root-zone layer will need to be levelled off to provide an even surface for the Econogrid 40 plastic pavers to be laid.

#### 4) Laying the Econogrid 40

Econogrid 40 should be laid from above onto the prepared rootzone bedding layer, working from one corner laying adjacent paving grids into their connectors. Econogrid 40 plastic paving grids can be cut on-site using a handsaw, jig-saw or other mechanical saw to match site / client requirements, shapes and obstacles.

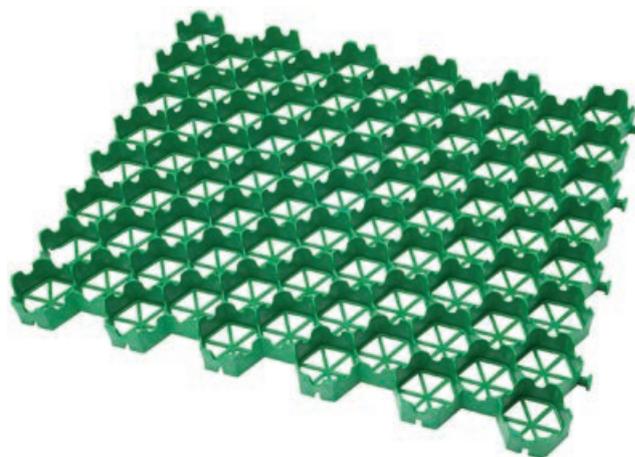
#### 5) Filling the Pavers

Econogrid 40 should be filled nearly to the top with the root-zone leaving a gap of approximately 5mm off the top. This layer can be brushed in and not compacted. Overfilling is likely to cause unnecessary compaction of the root-zone when trafficked leading to bad retention of the grass layer. Econogrid 40 grass paver filled surface can then be seeded, fertilized and watered in if necessary. Rolling in turf is not advised.

#### Notes on grass

It is recommended a hard wearing kikuyu or buffalo seed is used. The grass – when established – will need to cope with trafficking, wet and dry conditions. There needs to be care as to the time scales when the Econogrid 40 grass paver surface is used for the intended trafficking. The area should only be used for critical movements at first. There are two main reasons for this; Firstly, if trafficked too fast the tender young shoots will be easily damaged and the grass stunted or even killed off. Secondly, Econogrid 40 plastic pavers have been

designed to allow the grass root structure to entangle with the pavers open structure providing strength and stability to resist the loadings imposed by the trafficking. It must also be considered, when sowing the grass, what time of year it is and the prevailing weather conditions. A strong vibrant grass growth is needed and will generally take approximately 6 to 8 weeks in the growing season to become viable for trafficking. The best times of the year to seed is spring and autumn and away from the extremes of heat and cold. Please contact for further advice if unsure.



All Stake  
Supply