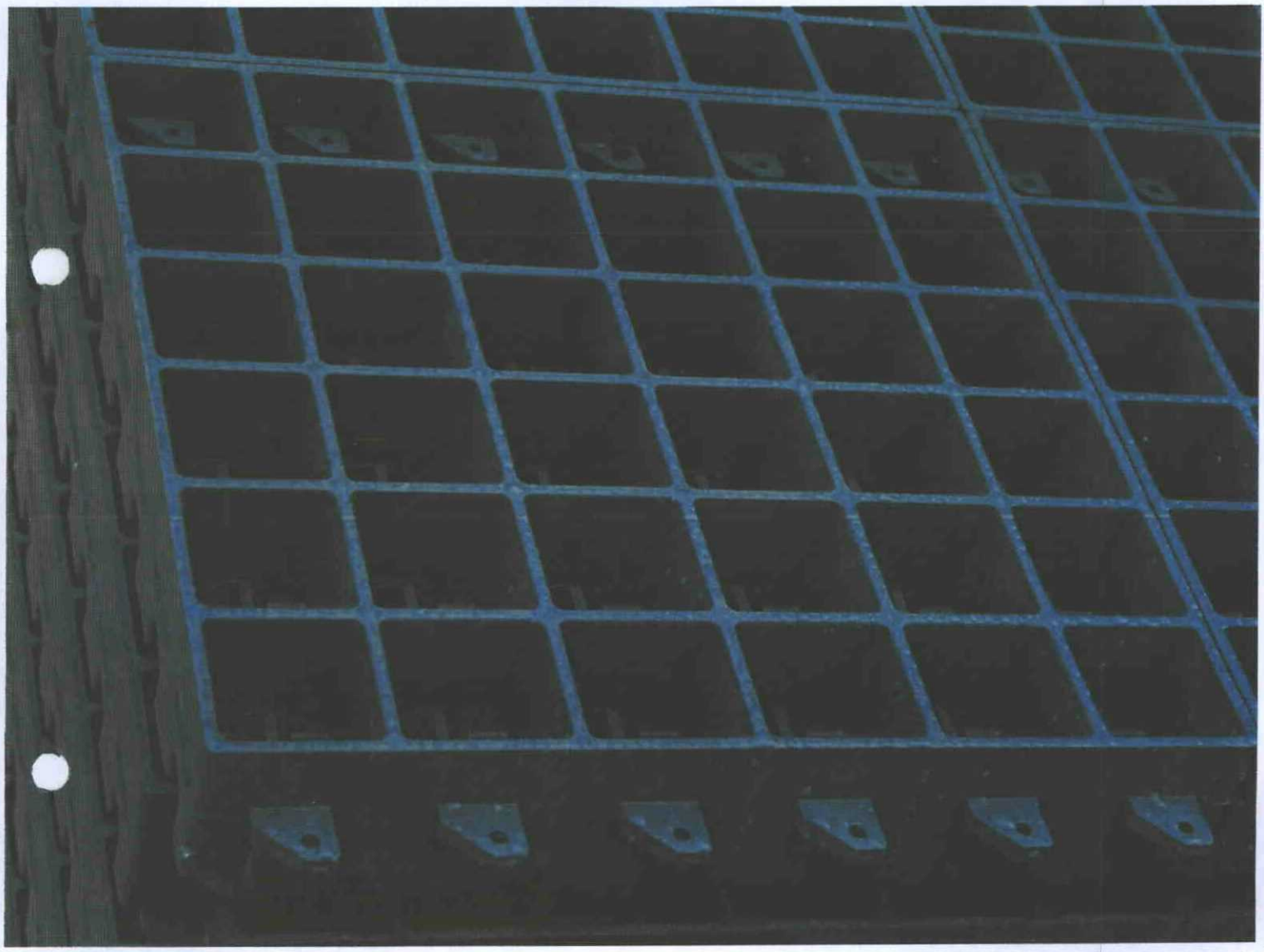
Ecoblock



The ultimate porous paving solution

Buildbase
CIVILS &
LINTELS

Ecoblock

Introduction

Over recent years, porous paving systems have been incorporated into many schemes to provide a visually appealing solution to requirements for a permanent load-bearing, yet permeable, wearing course. Many areas such as emergency access roads, heritage sites or rural locations may benefit from a natural grassed appearance as an alternative to unsightly concrete or tarmac. Porous paving systems can also be used with gravels to create a unique decorative effect. The permeability of such systems is important as it allows incorporation into Sustainable Urban Drainage Systems (SUDS).

Problem

Any ground that is frequently subject to vehicular or pedestrian traffic, such as car parks, driveways or access paths, will require surface reinforcement, be that concrete, tarmac, block paving or porous paving systems. Without such reinforcement, the ground will quickly become boggy, rutted and unsightly, with little chance of sustaining healthy grass growth. Even gravelled areas are not immune to displacement and, over time, surface migration of the gravels will occur, especially on slopes and in areas where vehicular movements are frequent.

Of the traditional methods used to reinforce ground, the majority are impermeable and so do not allow surface water to drain away naturally. As a result, they require a separate drainage system to be installed at additional cost and these costs together with related environmental issues are increasingly at the forefront of specifiers' decisions, especially with regards to SUDS.



Solution

The solution to these problems is provided by porous paving systems. These systems stabilise the ground to accept vehicle loadings, protect grass and retain gravel. They also provide a permeable wearing course which as a source control method, is compatible with the requirements of SUDS.

The Ecoblock porous paving systems provide effective grass protection and gravel retention and have been designed for long term use in a wide range of load bearing applications, such as;

- Pedestrian walkways
- Service access roads
- Permanent and overspill car parking
- Emergency access lanes
- Verge reinforcements
- Light aircraft or helicopter landing pads
- Golf buggy paths



The Ecoblock range now incorporates two depths of unit - 80mm and the NEW! 50mm depth. Although interchangeable in terms of infill used, the new shallow block, Ecoblock 50, is purpose-made for gravel applications where a decorative appearance is required. The shallower depth also provides for significant cost reductions as less gravel is required to infill individual cells.

Key points - New Ecoblock 50

- 50mm depth
- Best suited to gravel applications
- Reduced infill costs

Ecoblock 80 is recommended for grass applications as the 80mm deep cells provide the necessary soil depth to maintain healthy grass growth. Ecoblock 80 also complies with the recommendations of the Sports Turf Research Institute (STRI) which state that, provided the porous paving system is filled with a good quality top soil or rootzone and is appropriately seeded for the intended location i.e. shaded or coastal areas etc., the deeper the section, the better the grass growth that can be expected.

Key points - Ecoblock 80

- 80mm depth
- Best suited to grass applications
- Cell depth ensures optimum grass growth

Features

The Ecoblock systems are set firmly apart from other systems due to their unique benefits provided by well-engineered design features including:

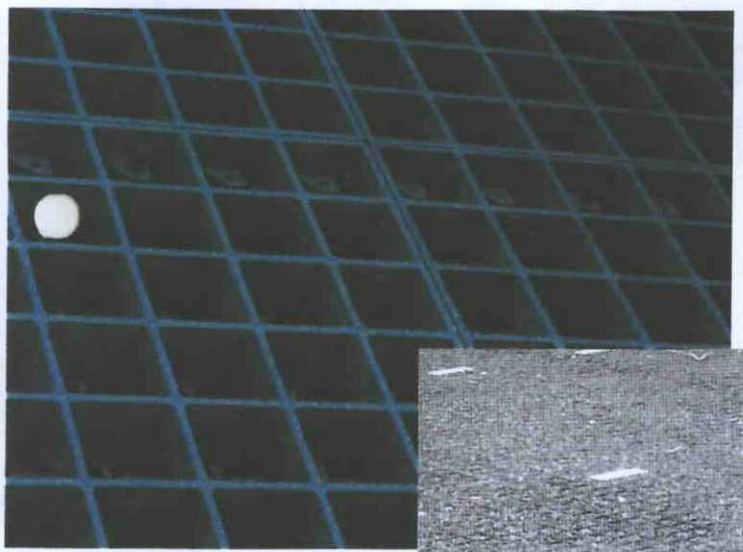
Positive interlock between units
Ecoblock systems have a unique interlocking and pinning arrangement to prevent lateral displacement of individual blocks under all normal climatic, loading and slope conditions, without requiring pinning on perimeter edges. The multi-point interlock between units also allows staggered jointing where maximum loadings are required to be accommodated.

Interconnecting cell structure
The interconnected cells within the Ecoblock units facilitate effective lateral drainage of surface water and allow the grass root ball to interlock between adjacent cells, assuring robust grass growth and structural performance of the Ecoblock 'raft', which spreads direct loads across the installation.

Manufactured from recycled materials
In line with environmental considerations, Ecoblock systems are

manufactured from fully UV stabilised, 100% recycled, High Density Polyethylene (HDPE), which is chemically inert and can be located in the ground without long term damage to the surrounding soils. Ecoblock systems are also fade resistant, providing longer-lasting aesthetically pleasing solutions.

Load bearing capacity
Ecoblock systems have a load bearing capacity of up to 1850kN/m2 or 185 tonnes/m2, making them suitable for access by emergency
vehicles, such as fire engines. This is due in part to the 8mm thick cell walls and the integral support 'feet' which provide the strength and stability needed to cope with high vehicle loadings.



Design flexibility
The Ecoblock unit's HDPE construction means that individual units can be easily cut to achieve complex shapes and curves on site. This facility, combined with the staggered joint capability of the Ecoblock units, ensures that almost any landscaping requirement can be fulfilled.

Manufactured in either green or black as standard, Ecoblock units can be supplied in alternative colours (subject to minimum order quantities). In gravel applications, units can provide both visual contrast or co-ordination with decorative gravel infills. Eco Markers are also available for demarcation in applications such as car parks or helipads.

Improved visual appearance
The cellular structure of the Ecoblock systems is such that 84% of the surface area is available for infill. In grass applications, this provides excellent grass coverage, rendering the Ecoblock system almost invisible once grass growth is fully established.

Lightweight & easy to handle
The lightweight HDPE construction of the Ecoblock units makes them not only easy to handle and cut to shape, but also simple to stack and transport to site. Furthermore, the Ecoblock systems' manageable size makes it quicker, and hence cheaper, to install.

A complete package...
The Ecoblock units are just one part of a range of products that have been specifically designed for surface reinforcement and SUDS applications. This comprehensive range enables design solutions to be formulated on a project-specific basis.

Complementary products available are:

- Geotextiles & Geogrids - for separation and ground reinforcement.
- Geoweb - for sub-surface ground reinforcement.
- Geofin - geocomposite surface water drainage.
- Polystorm - an underground storm water collection tank that can be used as part of a Sustainable Urban Drainage System for the infiltration or attenuation of storm water.
- Turf Mesh - for temporary protection of grassed areas.

Key benefits of the Ecoblock systems
- Visually attractive
- Suitable for a wide range of load bearing applications
- Effective drainage of surface water
- Manufactured from 100% recycled HDPE material
- Tried and tested with a proven track record
- Independently tested

Ecopin Locking Pins
- To secure the positive interlock between units and prevent lateral displacement

Ecomarker Demarcation Inserts
- For demarcation of car parking bays, helipads, etc.
- Available in white and yellow (other colours available subject to minimum order quantities)

Ancillary Products
- Decorative gravels
- Rootzone mixes

System Components

	Ecoblock 50	Ecoblock 80
Length (mm)	500	500
Width (mm)	500	500
Height (mm)	50	80
Units per m^2	4	4
Colours Available*	Green, Black	Green, Black

*Other colours available subject to minimum order quantities

NOTE: As this product is manufactured using a recycled material there may be some slight variation in size and colour.



Example of an installation using a mix of different colour blocks.

The pictures clearly demonstrate that when the blocks have some grass growth the colour of the block is immaterial



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