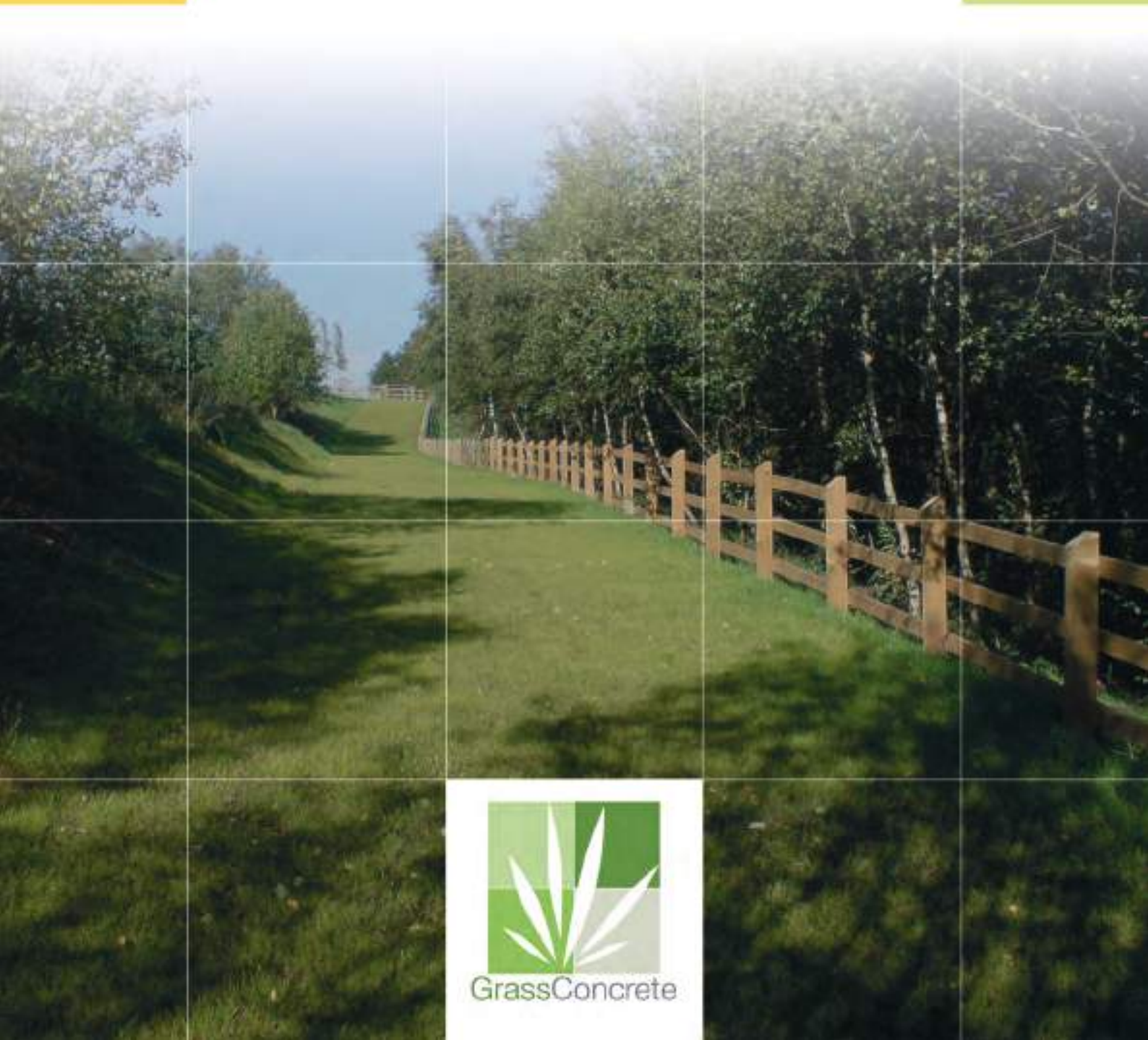




# Grassroad

plastic grassed paving system



# A natural choice



For over 50 years, we at Grass Concrete have remained at the forefront of developing environmentally sustainable solutions for the construction industry.

A key feature of our Company structure, is a dedication to Fit for Purpose principles backed by a tell it as it is approach to potential clients. In a sector that lacks an international standard it is perhaps inevitable that a specifier can be faced with widely differing performance claims, for what at face value might appear to be similar products. Our approach is therefore to explore circumstances of use ahead of applying our experience and expertise to help guide an enquirer through a specification process for the most appropriate system.

Plastic honeycomb cell pavers were originally developed in the USA during the early 1980's, with Grassroad being the fore-runner of this type. It later crossed the Atlantic, when we established an exclusive licence to manufacture and sell the system across Europe. The introduction of a plastic honeycomb cell paver created a number of features to attract specifiers:

- A high percentage grass cover
- A lightweight lo-build structure that when combined with grass creates a tensile layer to resist load
- A system that is seen as being relatively easy to install

With the advantages that Grassroad provides, it can be called upon to successfully perform in a range of applications, where the use is infrequent. As befits a system that offers a high proportion of grass cover the structural capability is gained from a combination of the honeycomb cell units and the grass matrix, which combine to create a tensile layer capable of withstanding load. Maintaining this bond is essential for performance and so we recommend infrequent or rotated traffic use to enable grass growth to recover.

## typical applications

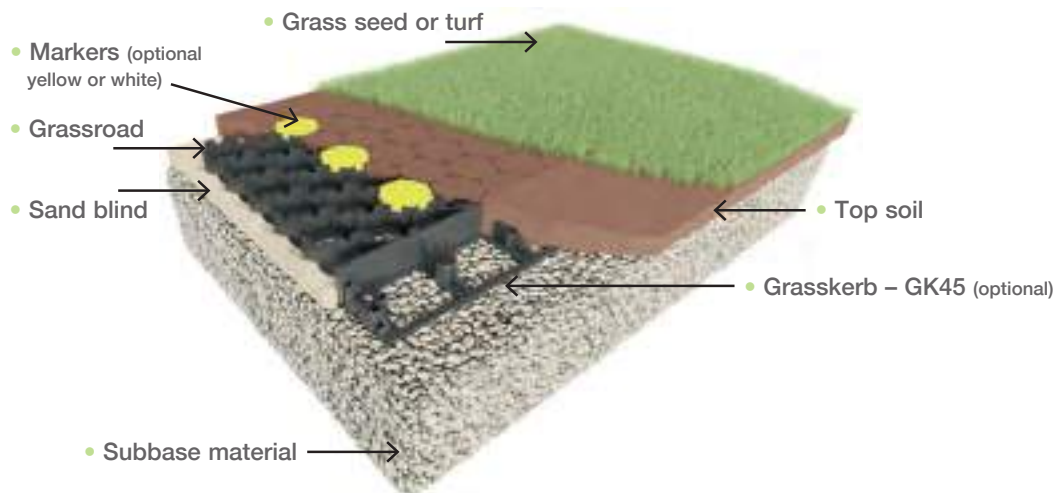
- Overspill car parks
- Fire and emergency access
- Verge hardening
- Amenity areas

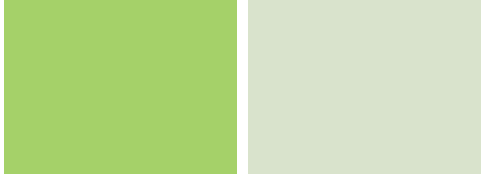
## composition

UK manufactured, re-cycled polypropylene, injection moulded units, in carbon black colour.

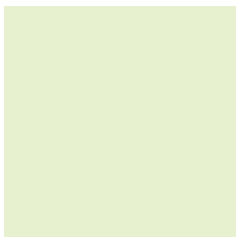
## dimensions

Actual unit size: 635 x 330 x 32mm  
plus 10mm underlying cleat  
Laid modular size: 622 x 311mm x 32mm  
Weight: 0.90kg  
Number per m<sup>2</sup>: 5.17  
Open area: surface 95%, base 74%





# our projects



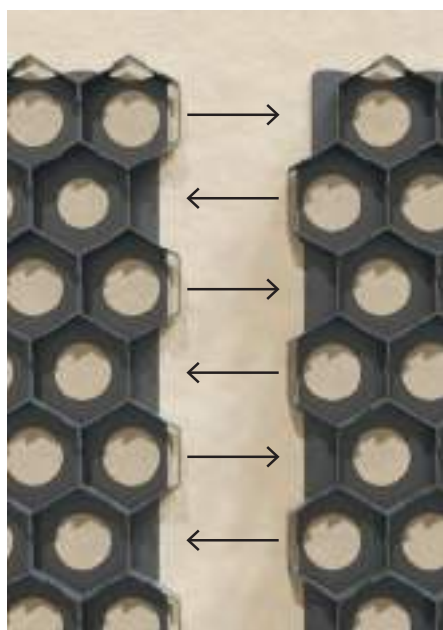
# load bearing

Grassroad units have been Satec Compression tested to a level of 244 tonnes per m<sup>2</sup> (yield) and 340 tonnes per m<sup>2</sup> (crush). We would stress that this is a laboratory test under controlled conditions and should not be used to determine vehicular loads where the circumstances of both load and bearing will on-site be very different.

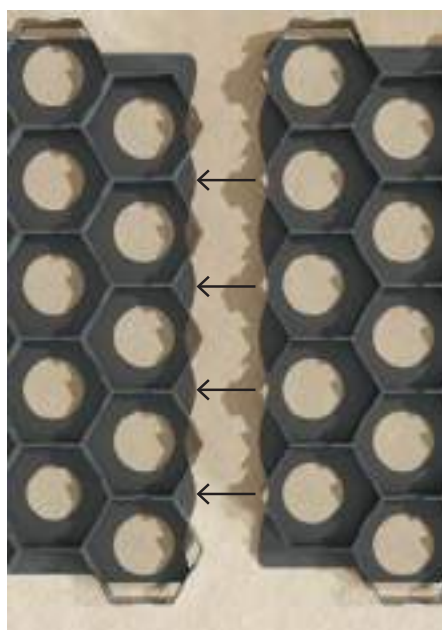
# sub-base

To transfer load to ground and to allow for permeability into the under-lying ground a sub-base will be required. This should consist of a free-draining granular material, which for UK applications can be described as a Clause 803, Type 1 material. The depth of the sub-base should be determined on site but we would not expect it to be less than 100mm for pedestrians and 150mm for cars. For fire access, we recommend that a project specific evaluation is made as this may need to consider specific load types and a requirement to function under saturated conditions.

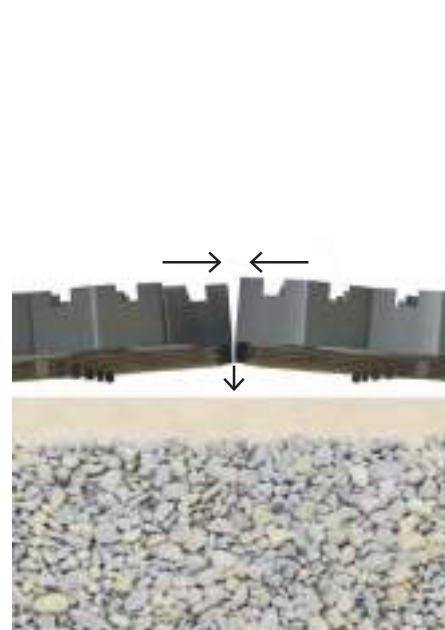
The surface of the sub-base should be blinded with a 20mm layer of sharp sand. Please note that we do not recommend the introduction of organic materials into this layer as this is likely to compromise the structural performance characteristics of the completed paving.



Side interlock



End interlock



Fold into position



# edge restraint

We recommend that edges are restrained to prevent lateral shear when the surface is loaded. Our **Grasskerb** GK45 dry-fixed units enable a concealed kerb detail to be created.

The photograph shows **Grasskerb** units about to be installed to the edge of a **Grassroad** paved area.



# topsoil and grass

## option 1

Infill voids with screened topsoil. After settlement top up the levels with the same type of soil and sow Grassmix Number 2 at a rate of 30gms/m<sup>2</sup>.

Grassmix Number 2:

- 20% chewings fescue
- 20% slender creeping red fescue
- 30% strong creeping red fescue
- 25% hard fescue
- 5% browntop bent

We recommend that the surface isn't trafficked until the grass has fully established.

## option 2

Infill voids with screened topsoil to within 12mm of the surface. Place good quality turf with joints offset from those of the underlying paving units. Lightly roll the surface with a dead weight roller to imprint the turf into the pavers.

We recommend that the surface is not trafficked until the turf has become established.

With a surface that can achieve up to 95% grass cover, some consideration should be given to characteristics of use under inclement conditions. We do not therefore, recommend the specification of plastic paver for steeply sloping ground or for locations adjacent to downward slopes as impaired grip could be a hazard.

# delineation

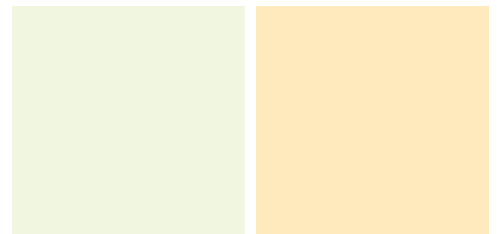
Edge and bay marking can be undertaken by inserting our **NEW** push-fit HDPE markers into the requisite voids of the **Grassroad** paver.



Edge marker type: Single  
Colour: White (GRD1W) or  
Yellow (GRD1Y)



Edge marker type: Double  
Colour: White (GRD2W) or  
Yellow (GRD2Y)



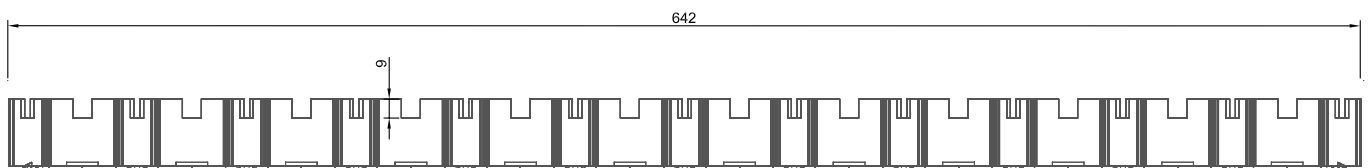
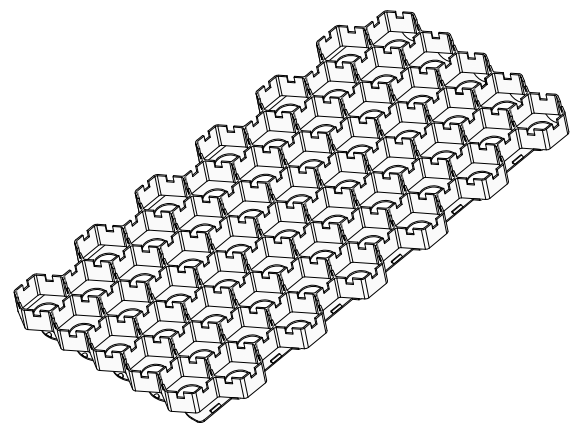
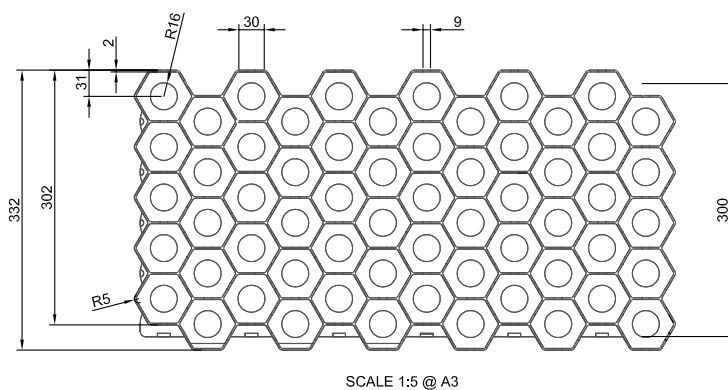
# other types of pocket fill

Occasionally consideration might be given to using a gravel fill to a plastic paver instead of its normal topsoil and grass matrix. We would advise caution with such specifications due to the following:

- Without the binding effect of grass the pavers can be more prone to lateral movement, settlement and uplift
- In a gravel matrix the paving layer can be more susceptible to surface heat build-up with increased thermal movement
- With only a shallow depth of containment gravel can be drawn out of the pockets by wheel movement with a resulting risk of Foreign Object Damage (FOD) from particles being flicked by wheels
- Particle movement is likely to have an abrasive effect on the cellular walls of the paver

## design information available

Please ask for our editable **Grassroad** CAD details to help with detailing or for our wider range of grass paving systems that include the **Grasscrete** and **Grassblock** concrete types.



10MM ANTI-SHEER CLEATS NOT SHOWN



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*Please note that information is given in good faith, without warranty and subject to alteration without prior notice.*

A full range of brochures and technical guides are available upon request



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