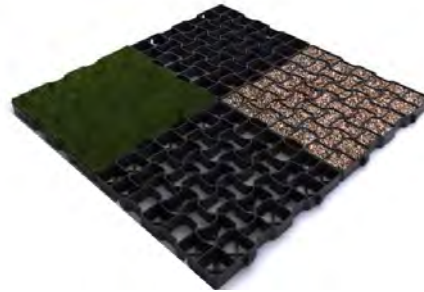


KEDEL

Sustainable Constuction with Recycled Plastic

GeoGrid® Specification and Installation Guide

GeoGrid is a new innovative ground reinforcement product for use in the permanent reinforcing of soft ground for vehicle parking areas and for stabilizing soft earth banks. The Product is a modular, open design grid tile manufactured in recycled low-density polyethylene. GeoGrid is tough, flexible, easy to install and allows natural drainage.



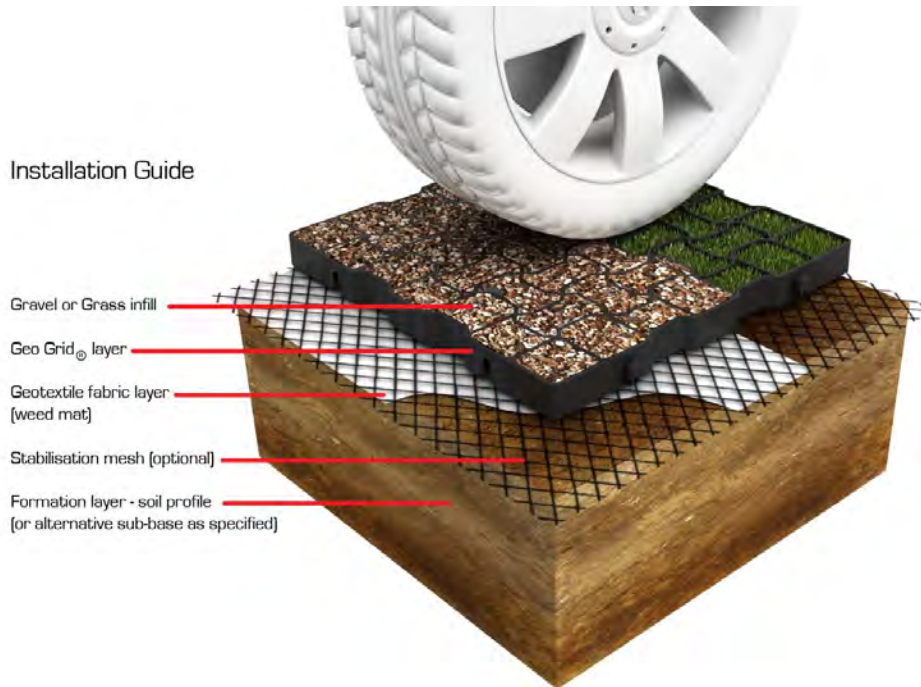
Key Product Details

Material	LDP – Low Density Polyethylene 100% Recycled Withstands frost and UV radiation Natural stability: Temperature – 30 to 180°C
Weight Loading	30 tonnes axle weight; 360 tonnes per m ² *
Dimensions	495mm x 495 x 40mm Wall thickness: 5mm
Weight	Tile: 1.6kg 1m ² : 6.4kg
Packaging	4 tiles – 1m ² 30 layers of 4 tiles – 30 m ² 120 tiles per pallet pallet size and area per pallet required = 105cm x 105cm x 130cm 52 pallets per standard articulated lorry
Uses	Ground Reinforcement including Slopes, Embankments Storage Areas Sustainable Urban Drainage Systems (SUDS) Pathways & Driveways Car Parks Equestrian & Outdoor Events Infiltration Basins Event Parking Road Extensions and Widening Boat/Helicopter Landing Pads Access Roads Fire and Emergency Routes Pedestrian Access Ways
Country of Manufacture	Made in United Kingdom

Installation

The method of installation is determined by existing ground conditions as well as the end use and weight loading requirements. The methods described below provide general guidance only and do not form part of any contract with the user. We advise that the method of installation should be undertaken in accordance with your Designer's specification and drawings, and the relevant Health and Safety requirements.

Prior to use, GeoGrid Pavers should be stored away, to prevent excessive mud, wet concrete or other deleterious materials from coming into contact with and affixing to the GeoGrid. Prior to installation GeoGrid should not be left directly exposed to sunlight for more than 30 days.



Grass

1. Existing turf and soil should be removed to a depth of $\geq 75\text{mm}$ over the area where GeoGrid is to be used (with allowance made for edge retaining boards or kerbs as required). This formation layer should be levelled and lightly consolidated.
2. Edge retaining boards or kerbs should then be installed as needed.
3. Place 4-14mm diameter gravel or aggregate (**BS EN 13242**) to a depth of 35mm spreading evenly over the prepared area.
4. Place the GeoGrid on top of the gravel / aggregate and connect using the interlocking lugs, progressing over the area in both directions. As an option, to ensure a greater degree of stability of the GeoGrid, pins or hoops can be used to pin the GeoGrid into the formation layer. GeoGrid can be cut to shape using a hand or power saw in order to follow curves or fit around obstacles as necessary.
5. GeoGrid can then be firmed in place using a light vibrating compaction plate.
6. The GeoGrid cells should then be filled with an appropriate propriety soil mix to about 5mm below the top of the cells. The soil mix should be suitable for encouraging and maintaining healthy grass growth. Again light compaction is recommended to settle the soil mix.

7. Undertake a seeding, fertilising and watering programme to establish the grass sward, with top dressing as necessary to cover the seed and encourage germination. The GeoGrid cells should not be overfilled.
8. Although the surface may be trafficked straight away, it is advisable to allow the grass to become established before use.
9. It should be noted that as an alternative to seeding, a thin-cut turf layer can be rolled into the GeoGrid instead.

Gravel

1. Existing turf and soil should be removed to a depth of ≥ 75 mm over the area where GeoGrid is to be used (with allowance made for edge retaining boards or kerbs as required). This formation layer should be levelled and lightly consolidated.
2. Edge retaining boards or kerbs should then be installed as needed.
3. Place a layer of stabilisation mesh on top of the formation layer using pins to keep it flat and in place as necessary. In circumstances where it is necessary to prevent ingress and migration of contaminants, a layer of geo textile fabric (of the required specification) can be placed above the formation layer before installation of the stabilisation mesh.
4. Place 4-14mm diameter gravel or aggregate to a depth of 35mm spreading it evenly over the stabilisation mesh, ensuring that the mesh is not left exposed.
5. Place the GeoGrids on top of the gravel / aggregate and connect them together using the protruding interlocking lugs, progressing over the area to be covered in both directions. As an option, to ensure a greater degree of stability of the GeoGrids, pins or hoops can be used to pin them into the formation layer. GeoGrids can be cut to shape using a hand or power saw to follow curves or fit around obstacles as necessary.
6. The GeoGrids can then be firmed up using a light vibrating compaction plate.
7. The GeoGrid cells should then be filled with the specified gravel or aggregate. For example: clean, well-graded angular material, 4-14mm in diameter.
8. Use a light vibrating compaction plate to consolidate the surface.
9. Any low spots can be refilled and compaction repeated until a satisfactory result is achieved.
10. The surface can be trafficked straight away.

Slope / Embankment Stabilisation

An interconnected GeoGrid structure can be used to reinforce sloped surfaces that would otherwise be subject to deterioration due to erosion and slippage, or where space is limited and steeper slopes are therefore needed. The grid structure can be filled with different materials such as soils (to support plant or grass establishment) or gravel / aggregates. We recommend that detailed design, specification and installation advice is sought from appropriately qualified civil and structural engineers.

Disclaimer: The weight load distribution performance of GeoGrid® is subject solely to ground conditions, weight and type of vehicle or plant. Kedel Limited always recommends that a site survey be carried out to determine weight loading and ground conditions. Kedel Limited, its agents or employees are not liable for any damage to existing ground or property through the use of GeoGrid.

*Tested by National Physical Laboratory, UK.