

## Installation Guide



**1.** Install edge retention as specified: Either tanalised timber boards, concrete, steel or plastic kerbs as appropriate

**2.** Place the paver units: with the male connectors facing in the direction of laying, place geogrid firmly onto the surface so that the base of the paver sits flat. Connect adjacent pavers together by connecting male and female connectors. Progress over the area in rows. Pavers are locked in place by a snap-fit clips. If paver separation is required, clips can be dislocated using careful, firm hand or screwdriver pressure or by gently twisting the paver joints. Use protective gloves to avoid abrasions.



**3.** Pavers can be offset or cut to fit around obstructions & curves using a hand or power saw. The use of cut-pieces which do not have integral connectors should be avoided wherever possible.

**4.** Fill pavers with specified angular decorative gravel/aggregate to finish levels. A light whacker plate may be used to consolidate the pavers and settle the fill. Top up the cells as required after settlement. It is preferable not to overfill the cells. The use of 'rounded pea gravel' is not recommended.



**5.** The surface may be trafficked immediately.

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## Design Notes

1. If Geotextile is not used, granular sub-base layer thickness must be increased to compensate
2. A 'DoT Type 1' sub-base may be used provided that an adequate drainage system is installed. Alternatively, a permeable/open-graded (reduced fines) layer (i.e. Type 3) may be specified, e.g. as part of a Sustainable Urban Drainage System (SUDS)
3. If construction traffic axle loads will be greater than 60kN (approx 6 tonnes), minimum sub-base thickness over Geogrid shall be 150mm. Maximum sub-base particle size should match minimum sub-base thickness, but not exceed 75mm diameter. For sub-base thickness of around 100mm, a minimum 37.5mm particle size should be adopted.
4. Where drainage system has been omitted and a 'reduced fines' sub-base is specified for SUDS, the sub soil formation should be covered with a Geotextile fabric to avoid contaminating or leaching into the sub-base.
5. Specific advice on CBR% strengths, ground conditions and construction over weak ground with a CBR less than 1% is available from Grassform Plant Hire Limited. CBR% = California Bearing Ratio, a measurement of subgrade soil strength
6. Typical standard drainage detail: 100mm diameter perforated pipe drains laid at minimum gradient 1:100, bedded on gravel in trench backfilled with 'DoT Type A' drainage aggregate, trench covered &/or wrapped with a geotextile fabric, pipes leading to a suitable outfall or soakaway. Drains installed down centre or one edge of areas up to 5m wide. Wider areas may require additional lateral drains at 5m - 10m centres. Drainage design to be determined by the specifier based on specific site conditions.
7. Drainage for a Sustainable Urban Drainage System (SUDS) application will vary according to the site but generally omits the requirement for extensive pipe & trench drainage systems within the sub-base layer and may require an additional layer of geotextile fabric at base on construction
8. The selected gravel fill & bedding should be clean, free-draining, angular shaped material in the specified size range
9. Maximum advised gradient for traffic applications: 12% (1:8) 7°.

Specific advice on the use of Geogrid on steep slopes, drainage suitability and Sustainable Urban Drainage System (SUDS) applications, can be obtained from Grassform Plant Hire Limited.

# Thickness Requirements

APPLICATION / LOAD	CBR (%) STRENGTH OF SUBGRADE SOIL	MINIMUM DoT BASE THICKNESS (mm)
Fire trucks, coaches and occasional HGV access	≥ 6	150
	= 4 < 6	150
	= 2 < 4	190
	= 1 < 2	380
Light vehicle access and overspill car parking	≥ 6	100
	= 4 < 6	100
	= 2 < 4	135
	= 1 < 2	260

# Technical Specifications

Material:	100% recycled polyethylene
Colour Options:	Black
Paver Dimensions:	500mm x 500mm x 40mm
Installed paver size:	500mm x 500mm (4 grids per m <sup>2</sup> )
Nominal internal cell size:	Castellated 67mm plaque & 46mm round shaped
Structure type:	Rigid-walled, flexible semi-closed cell combination
Cell wall thickness:	2.5mm - 4.4mm
Load bearing capacity (filled):	<400 tonnes/m <sup>2</sup>
Crush resistance (unfilled):	<250 tonnes m/2
Open cell %:	Top 92% / Base 75%
Connection type:	Male & Female links
Interlock Mechanism:	Integral self-locking snap-fit clips
Chemical resistance:	Excellent
UV resistance:	High
Toxicity:	Non-Toxic
Paver fill:	To top of cells using 5-20mm clean angular aggregate (BSEN13242)
Sub-base type:	DoT Type 1 of a modified permeable Type 3 sub-base
Geotextile fabric:	Geotextile where appropriate

# Estimating sub-grade strengths

CONSISTENCY	INDICATOR			STRENGTH	
	TACTILE (FEEL)	VISUAL (OBSERVATION)	MECHANICAL (TEST)	CBR	CU (kN/sqm)
Very soft	Hand sample squeezes through fingers	Man standing will sink >75mm	<2 SPT	<1 %	<25
Soft	Easily moulded by finger pressure	Man walking sinks 50-70mm	2-4 SPT	around 1%	Around 25
Medium	Moulded by moderate finger pressure	Man walking sinks 25mm	4-8 SPT	1-2 %	25-40
Firm	Moulded by strong finger pressure	Utility truck ruts 10-25mm	8-15 SPT	2-4 %	40-75
Stiff	Cannot be moulded but can be indented by thumb	Loaded construction vehicle ruts by 25mm	15-30 SPT	4-6 %	75-150

# GRASSFORM GROUP

## Related Products:



### Euromats

Ideal for creating temporary roadways and car parks. Can withstand up to 30 tonne loads and is suitable for use throughout the year.



### Bullseye Markers

Quickly slots on top of our GRM Pegs to create parking bay organisation without any stress!



### U-Pins

Reinforced metal 'staple like' structure for a tight and secure fit on the mesh to keep a strong hold.

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