



## Installation Method

1. Place paver units with spikes downward onto the prepared well-consolidated bedding layer. Edging boards or kerbs can be used where required, according to existing soil conditions.
2. Connect the pavers using the ground spikes and loops, progressing over the area in rows. Use protective gloves to avoid abrasions.
3. Pavers can be cut using a hand or power saw to fit around obstructions and curves. Cut pieces which are less than half the original size should be avoided where possible.
4. Fill pavers with the specified propriety rootzone. Finished levels should be 5-7 mm below the top of the cells after settlement. Do not overfill the paver cells. A light vibrating plate can be used to consolidate the pavers and to settle the rootzone infill if required.
5. Rootzone must be a free-draining structurally sound sand:compost or sand:soil blend. This is a nominal propriety blend of 60:40 or 70:30 ratio. Self blending of paver fill and bedding material is not recommended.
6. Carry out a normal seeding, fertilising and watering programme. A very light top dressing may be applied to just cover the seed and to provide adequate germination conditions. Do not overfill the paver cells.

**Note 1:** If the geogrid layer is omitted, then the total sub-base layer thickness (T) must be increased by 50%.

**Note 2:** A 'DoT Type 1' sub-base may be used, provided that an adequate drainage system is installed (refer to note 4). Alternatively a porous/open-graded (reduced fines) sub-base layer may be specified, e.g. as part of a Sustainable Urban Drainage System (SUDS) application. If a reduced fines sub-base layer is specified, this must be covered with either a geotextile filter membrane and/or a suitable clean gravel blinding layer, to avoid fine particles entering the sub-base layer.

**Note 3:** Specific advice on ground conditions, CBR% and construction over ground with a CBR less than 1% is available from Origin Suregreen Ltd. CBR% = California Bearing Ratio, a measurement of subgrade soil strength.

**Note 4:** Typical drainage details: 100 mm diameter perforated pipe drain laid at minimum gradient 1:100, bedded on gravel in trench backfilled with 'DoT Type A' drainage aggregate, covered or wrapped with Geotextile fabric and leading to a suitable outfall or soakaway. Drains placed down centre or one edge of access routes up to 5 m wide. Wider areas may require additional drains at 5 m–10 m centres. Drainage design to be determined by the specifier based on specific conditions on site. Specific advice on Drainage and Sustainable Urban Drainage Systems (SUDS) is available from Origin Suregreen Ltd.

**Note 5:** Rootzone bedding and paver infill must be a free-draining, structurally sound propriety blend of sand:soil or sand:compost such as that used in sports/golf construction. This is normally identified as a 60:40 or 70:30 ratio blend and in-situ self-blending is NOT recommended.

**Note 6:** Maximum advised gradient for traffic applications is 12% (1:8). Pegging may be required. Specific advice for the use of CellPave™ 40 on slopes can be obtained from Origin Suregreen Ltd.

**Note 7:** CellPave™ 40 complies with BS8300:2001 – "Design of buildings and their approaches to meet the needs of disabled people" – Code of Practice. (ISBN 0580384381)

**Table 1: Typical Sub-base Thickness (T) Requirements - refer to construction profile**

Application / Load	CBR (%) strength of subgrade soil (see Chart 1)	(T) DoT sub-base thickness (mm) (see Note 2)	Geogrid (see Note 1)
Fire engine and occasional HGV access	≥ 6	100	GeoTrax GX20/20T
	= 4 < 6	120	GeoTrax GX20/20T
	= 2 < 4	190	GeoTrax GX20/20T
	= 1 < 2	380	GeoTrax GX20/20T
Light vehicle access and overflow car parking	≥ 6	100	GeoTrax GX30/30T
	= 4 < 6	100	GeoTrax GX30/30T
	= 2 < 4	135	GeoTrax GX30/30T
	= 1 < 2	260	GeoTrax GX30/30T

**Table 2: Paving Grid Specification**

Product	CellPave™ 40
Material	Rigid 100% recycled polyethylene
Colour	Black
Paver Dimensions	500mm x 500mm x 40mm
Paver Size	500mm x 500mm (4 grids per m <sup>2</sup> )
Nominal Cell Size	60mm Octagonal
Cell Wall Thickness	2.7mm - 3.2mm
Weight	1.2kg/paver - (4.80kg/m <sup>2</sup> )
Load Bearing Capacity	150 tonnes/m <sup>2</sup> (Crush resistance)
Central Base Support	25mm long pegs on underside (4 per paver)
Open Cell %	Top 95% / Base 75%
Connection Type	Spike and loop edge connection
Chemical Resistance	Excellent
UV Resistance	High
Toxicity	Non Toxic
Bedding Layer	60:40 rootzone (see Note 5) : 50-70mm thick
Paver fill (seed bed)	60:40 rootzone (see Note 5) : 33-35mm thick
Grass Seed or Tturf	35g/m <sup>2</sup> amenity blend low maintenance seed or turf as required.
Fertiliser	Pre-seed fertiliser followed up with appropriate seasonal fertiliser.
Sub-Base Ttype	DoT Type 3 or a modified porous sub-base (Table 1 & Note 2). DoT Type 1 with drains
Base Reinforcement	E'Grid 30/30 geogrid (Table 1 & Note 1) - Specifications available on request.

**Chart 1: Field guidance for estimating sub-grade strengths**

Consistency	Indicator			Strength	
	Tactile (feel)	Visual (observation)	Mechanical (test) SPT	CBR %	CU kN/m <sup>2</sup>
Very Soft	Hand sample squeezes through fingers	Man standing will sink >75mm	<2	<1	<25
Soft	Easily moulded by finger pressure	Man walking sinks 50-70mm	2-4	Around 1	Around 25
Medium	Moulded by moderate finger pressure	Man walking sinks 25mm	4-8	1-2	25-40
Firm	Moulded by strong finger pressure	Unloaded construction vehicle ruts 10-25mm	8-15	2-4	40-75
Stiff	Cannot be moulded but can be indented with thumb	Loaded construction vehicle ruts by 25mm	15-30	4-6	75-150

**NOTE:**

This field guide is provided as an aid to assessing the mechanical stabilisation requirements in commonly encountered site conditions. Origin Suregreen Ltd. accepts no responsibility for any loss or damage resulting from the use of this guide.