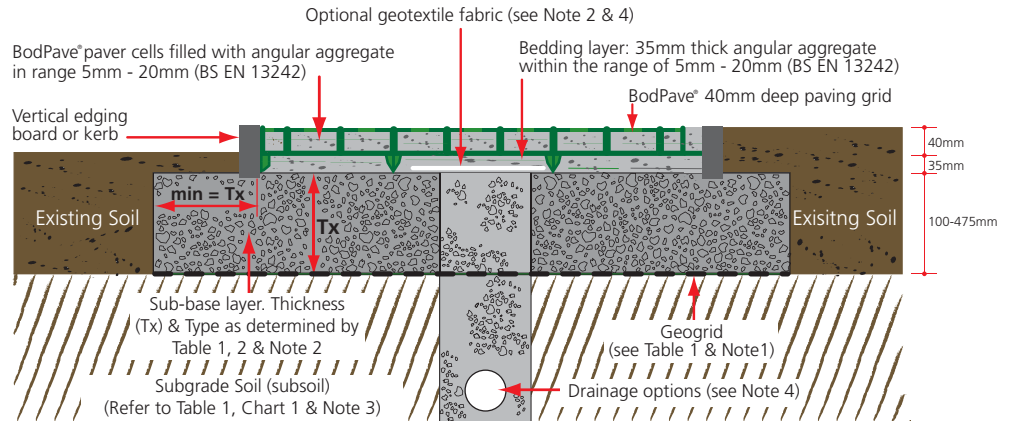


## SPECIFICATION, DESIGN & INSTALLATION GUIDANCE

### For Gravel Surfaces



#### Typical Construction Profile



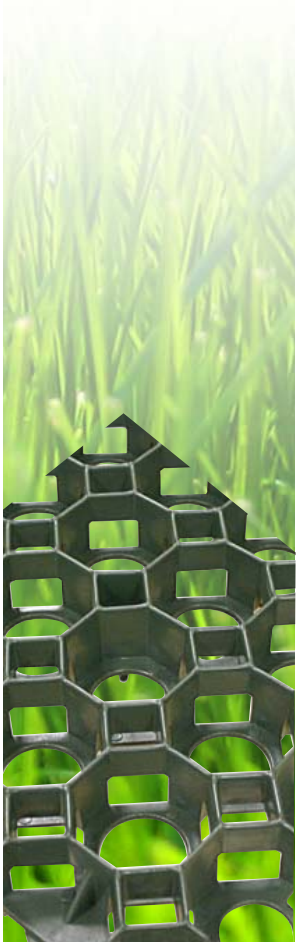
#### INSTALLATION METHOD

1. Place paver units with spikes downwards onto the prepared sub-base + bedding layer (see note 2). Edging boards or kerbs are recommended, to aid gravel retention.
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 the pavers to the top of the cells with the specified angular decorative aggregate. If required, use a light vibrating plate to consolidate the aggregate into the cells. Top up cells with aggregate as necessary. Fully rounded 'pea gravel' is not recommended.
5. If the area is to be used as horse paddock, it is preferable to cover the area with a 50-100mm thick layer of fine sand/mulch.
6. The surface may be trafficked immediately.

#### NOTES

- Note 1:** If the geogrid layer is omitted, then the total sub-base layer thickness (Tx) 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. Do not use sand for the paver bedding layer.
- Note 3:** Specific advice on ground conditions, CBR% and construction over ground with a CBR less than 1% is available from Boddingtons Limited. CBR% = California Bearing Ratio, a measurement of subgrade soil strength.
- Note 4:** Typical drainage details; 100mm 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 a Boddingtons geotextile fabric and leading to a suitable outfall or soakaway. Drains placed down centre or one edge of access routes up to 5m wide. Wider areas may require additional drains at 5m - 10m 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 Boddingtons Limited.
- Note 5:** Maximum advised gradient for traffic applications is 12% (1:8) 7°. Pegging may be required. Specific advice for the use of BodPave® on slopes can be obtained from Boddingtons Limited.
- Note 6:** BodPave® complies with BS8300:2001 - "Design of buildings and their approaches to meet the needs of disabled people" - Code of Practice. (ISBN 0580384381)

# Bodpave®



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

APPLICATION/LOAD	CBR (%) STRENGTH OF SUBGRADE SOIL <i>(see Chart 1)</i>	(Tx) DoT SUB-BASE THICKNESS (mm) <i>(see Note 2)</i>	GEOGRID <i>(see Note 1)</i>
Fire truck and occasional HGV access	≥ 6	125	SG20
	= 4 < 6	175	SG20
	= 2 < 4	275	SG30
	= 1 < 2	475	SG30
Light vehicle access and overspill car parking	≥ 6	100	SG20
	= 4 < 6	150	SG20
	= 2 < 4	225	SG30
	= 1 < 2	350	SG30

**Table 2: Paving Grid Specification**

DESCRIPTION	DATA
<b>Product</b>	BodPave®
<b>Material</b>	Rigid 100% recycled polyethylene
<b>Colour</b>	Dark Green
<b>Paver dimensions</b>	500mm x 500mm x 40mm
<b>Paver size laid</b>	483mm x 483mm (4.28 grids per m <sup>2</sup> )
<b>Nominal cell size</b>	58mm Octagonal
<b>Cell wall thickness</b>	2.7mm - 3.2mm
<b>Weight</b>	1.32kg/paver - (5.65kg/m <sup>2</sup> )
<b>Load bearing capacity</b>	150 tonnes/m <sup>2</sup> (Crush resistance)
<b>Central base support</b>	35mm long pegs on underside (4 per paver)
<b>Open cell %</b>	Top 95% / Base 75%
<b>Connection type</b>	Spike and loop edge connection
<b>Chemical resistance</b>	Excellent
<b>UV resistance</b>	High
<b>Toxicity</b>	Non Toxic
Bedding Layer	35mm thick of 5-20mm angular aggregate (BS EN 13242)
Paver fill	To top of pavers using 5-20mm crushed aggregate (BS EN 13242)
Sub-base type	DoT Type 1 or a modified porous sub-base (see Table 1 & Note 2)
Base reinforcement	Biaxial geogrid - (see 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)	CBR	CU
			SPT	%	kN/sqm
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	Utility truck ruts 10-25mm	8-15	2-4	40-75
Stiff	Cannot be moulded but can be indented by thumb	Loaded construction vehicle ruts by 25mm	15-30	4-6	75-150

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

*Please note that the information above is given as a guide only. Boddingtons cannot be liable for damage caused by incorrect installation of this product. Final determination of the suitability of any information or material for the use contemplated and the manner of its use is the sole responsibility of the user and the user must assume all risk and responsibility in connection therewith.*

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