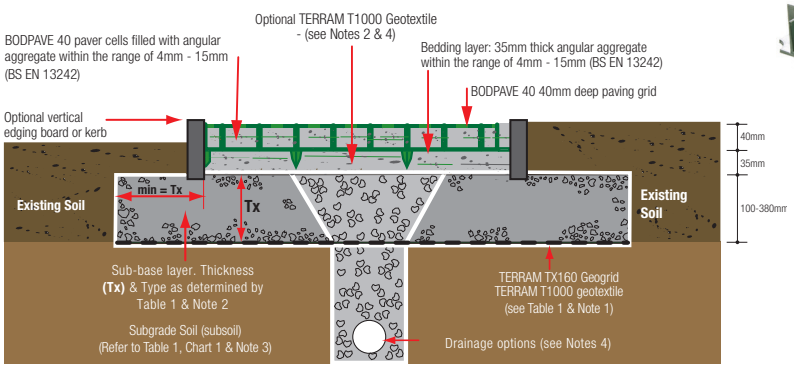
BODPAVE™40 Paving Grids

SPECIFICATION, DESIGN & INSTALLATION GUIDANCE
For Gravel Surfaces

Typical Construction Profile



Installation method for BODPAVE 40

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 compactor 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.

Design notes for BODPAVE 40

1 If the TERRAM TX160 geogrid layer is omitted, then the total sub-base layer thickness (T) must be increased by 50%.

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 a layer of TERRAM T1000 geotextile to avoid fine particles entering the sub-base layer. Do not use sand for the paver bedding layer.

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

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 TERRAM T1000 geotextile 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 TERRAM. The type of SUDS design (attenuation or infiltration) will depend upon the underlying ground conditions and not all sites are suitable for infiltration. Weak and low-permeability cohesive sub-grades are generally unsuitable for infiltration SUDS.

5 Maximum advised gradient for traffic applications is 12% (1:8) 7º. Pegging may be required. Specific advice for the use of BODPAVE 40 on slopes can be obtained from TERRAM.

6 BODPAVE 40 complies with BS8300:2001 - "Design of buildings and their approaches to meet the needs of disabled people" - Code of Practice. (ISBN 0580384381).

Specific advise on the use of BODPAVE 40 on steep slopes, drainage suitability and Sustainable Urban Drainage Systems (SuDS) applications, can be obtained from TERRAM.

e.mail: info@terram.com
www.terram.com

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

APPLICATION/LOAD	CBR (%) STRENGTH OF SUBGRADE SOIL (see Chart 1)	(TX) DoT SUB-BASE THICKNESS (mm) (see Notes 1 - 5)	GEOGRID (see Notes 1 - 3)
* Emergency vehicle access	≥6	100	TX160
	= 4 < 6	120	TX160
	= 2 < 4	190	TX160
	= 1 < 2	380	TX160
* Light vehicle access and overspill car parking	≥6	100	TX160
	= 4 < 6	100	TX160
	= 2 < 4	135	TX160
	= 1 < 2	260	TX160

Table 2: Paving Grid Specification

DESCRIPTION	DATA
Product	BODPAVE 40
Material	Rigid 100% recycled polyethylene
Colour	Black & Green
Paver dimensions	500mm x 500mm x 40mm
Paver size laid	500mm x 500mm (4 grids per m^2)
Nominal cell size	60mm Octagonal
Cell wall thickness	2.7mm - 3.2mm
Weight	1.2kg/paver - (4.8kg/m^2)
Load bearing capacity	150 tonnes/m^2 (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

Supplementary information

DESCRIPTION	DATA
Bedding Layer	35mm thick of 4-15mm angular aggregate (BS EN 13242)
Paver fill	To top of pavers using 4-15mm crushed aggregate (BS EN 13242)
Sub-base type	DoT Type 3 or a modified porous sub-base (Table 1 & Note 2). DoT Type 1 with drains
Base reinforcement	TERRAM TX160 geogrid (Table 1 & Note 1)-Specification on request.
Geotextile Fabric	TERRAM T1000 Geotextile where appropriate.

Chart 1: Field guidance for estimating sub-grade strengths

CONSISTENCY	INDICATOR			STRENGTH	
	TACTILE (feel)	VISUAL (observation)	MECHANICAL (test) SRT	CBR (%)	CU (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. TERRAM accepts no responsibility for any loss or damage resulting from the use of this guide.

* Regular tight turning of vehicles and "dry" steering may cause damage to the units and/or displace gravel infill; vehicle manoeuvring should be carefully considered at specification/design stage. Gravel filled units may require some maintenance when subjected to regular channelised and turning traffic loadings.

- Please note that some colour/shade variations may occur in recycled HDPE, but these will be minimalised as much as is possible in the manufacturing process.
- In addition, virgin polymer may be used to manufacture green pavers when recycled green HDPE is in short supply

Berry

A Berry Global Company
Fiberweb Geosynthetics Ltd
Blackwater Trading Estate
The Causeway, Maldon, CM9 4GG
United Kingdom

Tel: +44 (0)1621 874200
Fax: +44 (0)1621 874299
Email: info@terram.com
www.terram.com

TERRAM
Geosynthetics you can trust