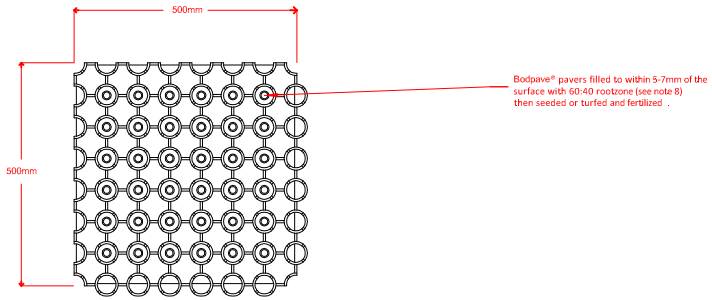
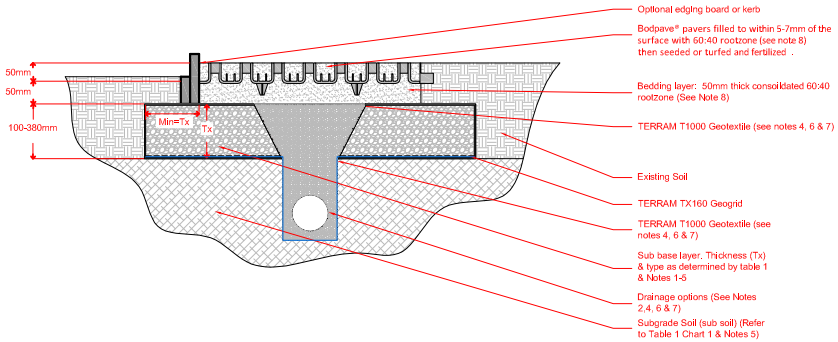


1 BodPave®85 : **Grassed Surface Paving Grid**
Scale : N.T.S.



2 BodPave®85 : **Grassed Surface : Typical Construction Profile**
Scale : N.T.S.

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

*Research carried out by Sheffield University UK Department of Mechanical Engineering. (Rennison/Allen March 2009)

Please note that the information above is given as a guide only. All sizes and weights are nominal figures and may vary to what is published. Fiberweb Geosynthetics ltd 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.

DESIGN NOTES:

Note 1: If TERRAM TX160 geogrid is omitted, the total Granular Sub-Base (GSB) layer thickness (Tx) must be increased by minimum 50%.
Note 2: A 'Type 1' sub-base may be used provided that an adequate drainage system is installed. Alternatively, a permeable/open-graded (reduced fines) sub-base layer (i.e Type 3) may be specified, e.g. as part of Sustainable Urban Drainage Systems (SUDS).
Note 3: If construction traffic axle loads will be greater than 60kN (approx. 6 Tonnes), minimum sub-base thickness over TERRAM TX160 geogrid shall be 150mm. Maximum sub-base particle size should match minimum sub-base thickness but not exceed 75mm diameter. For sub-base thicknesses of around 100mm, a minimum 37.5mm particle size should be adopted to allow effective installation of TERRAM TX160 geogrid.
Note 4: Where drains are omitted and a 'reduced fines' sub-base is specified for SUDS this must be covered with either TERRAM T1000) and/or a clean, suitably graded gravel blinding to avoid the bedding layer leaching into the sub-base.
Note 5: Specific advice on CBR% strengths, ground conditions and construction over weak ground with a CBR less than 1% is available from TERRAM. CBR% = California Bearing Ratio, a measurement of subgrade soil strength.
Note 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 TERRAM T1000 Geotextile, pipes leading to a suitable outfall or soakaway. Drains installed down centre or one edge of areas up to 5 m wide. Wider areas may require additional lateral drains at 5-10m centres. Drainage design to be determined by the specifier based on specific site conditions.
Note 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 TERRAM T1000 geotextile fabric at base of construction. 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.
Note 8: Rootzone bedding and paver fill must be a free-draining, structurally sound propriety blend of sand:soil or sand:compost such as used in sports/golf construction & normally identified as a 60:40 or 70:30 ratio blend. The use of site-won materials or in-situ self-blending is NOT recommended without taking further advice.
Note 9: Maximum advised gradient for traffic applications: 12% (1:8) 7°. BodPave ®85 has specific pegging points if required for steep slope applications. Pegging is not necessary for standard access route applications.
Note10: BodPave®85 complies with BS8300:2009 - "Design of buildings and their approaches to meet the needs of disabled people" - Code of Practice. (ISBN 978 0 580 57419).

Specific advice on the use of BodPave ®85 on steep slopes, drainage suitability and Sustainable Urban Drainage Systems (SUDS) applications, can be obtained from Terram..

Table 1 : Typical Sub-base Thickness (Tx) Requirements - refer to ② Typical Construction Profile

APPLICATION/LOAD	CBR (%) STRENGTH OF SUBGRADE SOIL	(Tx) DoT SUB-BASE THICKNESS (mm (see Notes 1-5)	TERRAM TX160 GEOGRID (See Notes 1-3)
Fire trucks, Coaches and occasional HGVaccess	≥ 6 = 4 < 6 = 2 < 4 = 1 < 2	100mm 120mm 190mm 380mm	TX160 TX160 TX160 TX160
Light vehicle access and overspill car parking	≥ 6 = 4 < 6 = 2 < 4 = 1 < 2	100mm 100mm 135mm 260mm	TX160 TX160 TX160 TX160

Table 2 : Paving Grid Specification

Description	Data
Product	BodPave®85
Material	100% recycled polyethylene
Colour options	Black & Green
Paver dimensions	500mm x 500mm x 50mm + 35mm ground spike
Installed Paver size	500mm x 500mm (4 grids per 1m 2)
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
Weight (Nominal)	1.56 kg/paver (6.24 kg/m 2)
Load bearing capacity (filled)	< 400 tonnes/m 2*
Crush Resistance (unfilled)	< 250 tonnes *
Basal support & Anti-Shear	Integral 35mm long Cross & T section ground spikes (18 per paver)
Open cell %	Top 92% / Base 75%
Connection type	Overlapping Edge Loop & Cell connection
Interlock Mechanism	Integral self locking Snap-Fit Clips
Chemical resistance	Excellent
UV resistance	High
Toxicity	Non Toxic
Bedding Layer	60:40 rootzone (see Note 8) : 50mm thick
Paver fill (seed bed)	60:40 rootzone (see Note 8): 43-45mm thick
Grass seed or turf	35 g/m 2 amenity blend low maintenance seed or turf as required
Fertiliser	Pre-seed fertiliser followed up with appropriate seasonal fertiliser
Sub-base type	DoT Type 1 or a modified permeable 'reduced fines' sub-base (Table 1 & Notes 1-5)
Sub-base reinforcement	TERRAM TX160 geogrid (Table 1 & Notes 1-4 & 7)-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)	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	40-75
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

TERRAM Geosynthetics you can trust

Fiberweb Geosynthetics Limited
Blackwater Trading Estate
The Causway
Maldon, Essex CM9 4GG England
Tel: +44 (0) 1621 874200
Fax: +44 (0) 1621 874299
e.mail: info@terram.com
website: www.terram.com

NOT FOR CONSTRUCTION

BodPave®85 Paving Grids
For Grassed Surfaces
Design and Specification Guide