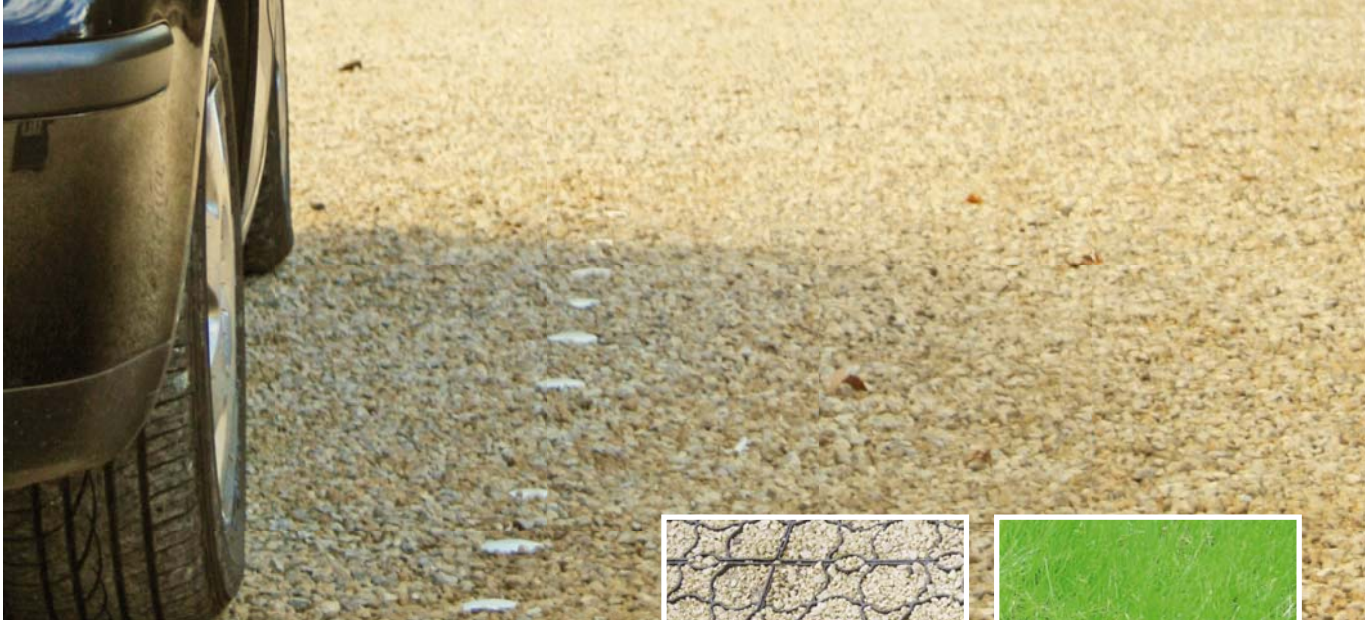


TDP PorousPave®

Technical Specification & Installation Guide



PorousPave is a high performance UK manufactured plastic porous paving system made from 100% recycled waste material that is also fully recyclable.

Typical applications for PorousPave include:

- Primary and overflow car parking areas
- Emergency and service access routes
- Driveways and paths
- Verge reinforcement
- Cycleways
- Bridleways
- Caravan parks
- Leisure parks
- Golf buggy paths
- Canal towpaths
- Helipads and taxiways

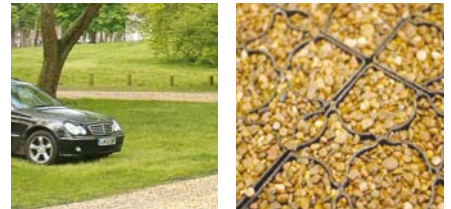
Filled with either gravel or grass to provide a naturally attractive and durable surfacing solution, PorousPave complies with all the recently imposed requirements to install a sustainable drainage system.

Being free draining, Porouspave effectively



cleans and infiltrates stormwater back into the ground without the need for expensive underground drainage systems.

TDP PorousPave®



Benefits

- HGV load bearing capability
- Resists deformation and fracture
- Easy installation with no pegging
- Conforms to irregular surfaces and gradients
- Complies with BS8300:2009
- Design of buildings and their approaches to meet the needs of disabled people

Technical data

Unit size: 330 x 330 x 40mm deep
(9 units per square metre)

Weight: 4.14 kg per m²

Load bearing: 250 tonnes per m²

Material: 100% recycled plastic

Applications

- Permanent and overspill car parks
- Drives, paths and cycle routes
- Fire and service access roads
- Helipads

PorousPave installation guidelines for GRAVEL surfaces

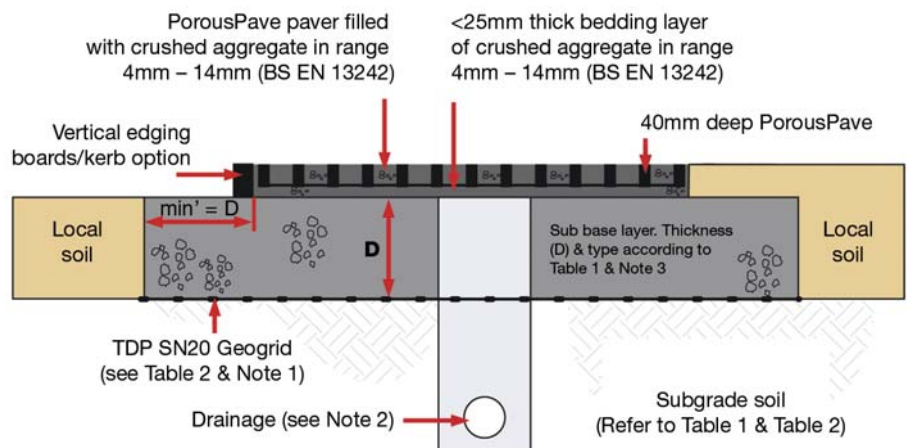
1. Place paver units with dimpled face uppermost (flared base down) onto the prepared sub base and bedding layer (see note 4). The leading edge of the pavers should have the fixing lugs exposed for quick installation. No pegging is required. Edging boards or kerbs are recommended, to aid gravel retention.
2. Connect the pavers using the lugs and slots, 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 contours. 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 crushed aggregate. If required, use a light vibrating plate to consolidate the crushed aggregate into the cells. Top up cells with crushed aggregate as necessary. Fully rounded pea gravel is not recommended.
5. If the area is to be used as horse paddock, cover the area with a 50-100mm thick layer of fine sand/mulch.
6. The surface may be trafficked immediately.

Note 1: If TDP SN20 geogrid is omitted, then the total sub base layer thickness must be increased by a minimum 50%.

Note 2: 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 stone, covered or wrapped with a 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 by specifier based on specific ground conditions on site.

Note 3: A 'DoT Type 1' sub base may be used, provided that an adequate drainage system is installed, or alternatively a porous/open-graded (reduced fines) sub base layer, 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 suitable clean gravel binding layer, to avoid fine particles entering the sub base layer.

Note 4: Maximum advised gradient for traffic applications is 12% (1:8) 7°.



Paver type	PorousPave	
Specifications	Material	100% recycled plastic
	Paver unit size	330mm x 330mm x 40mm (9 per m ² , pre-connected)
	Nominal cell size	63mm x 63mm (internal) Approx 85% open cells/m ²
	Weight	4.14kg/m ²
	Load bearing capacity	250 tonne/m ² (crush resistance)
	Connection type	'T' lugs and slots.
	Colour	Black
	Markers	White mouldings are available to identify areas such as parking bays and routes. These circular inserts clip into the top of paver cells. 6 per continuous linear metre.
	Chemical resistance	Excellent
	UV resistance	High
Bedding layer	4 - 14mm crushed aggregate (BS EN 13242)	20 - 25mm thick bedding layer
Paver fill	4 - 14mm crushed aggregate (BS EN 13242)	To top of paver cells
Sub-base type	DoT Type 1 or a porous sub base	'D' thickness in mm (see Table 2 & Note 3)
Sub-base reinforcement	TDP SN20 geogrid (see Note 1 & Table 2)	

Table 1: Field guidance for estimating sub-grade strengths

Consistency	Indicator			Strength	
	Tactile (feel)	Visual (observation)	Mechanical (test)	CBR	CU
			SPT	%	kN/m ²
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

PorousPave installation guidelines for GRASSED surfaces

- Place paver units with dimpled face uppermost (flared base down) onto the prepared, well consolidated bedding layer (see note 5). The leading edge of the pavers should have the fixing lugs exposed for quick and easy installation. No pegging is required. Edging boards or kerbs can be used where required, according to local soil conditions.
- Connect the pavers using the lugs and slots, progressing over the area in rows. Use protective gloves to avoid abrasions. Leave a 10mm gap around the edge to allow for expansion.
- Pavers can be cut using a hand or power saw to fit around obstructions and contours. Cut pieces which are less than half the original size should be avoided where possible.
- Fill the pavers with the specified propriety rootzone. Finished levels should be 7-10mm 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.
- Rootzone must be a free-draining structurally sound sand:compost or sand:soil blend. This is a nominal proprietary blend of 60:40 or 70:30 ratio. Self blending is not recommended.
- 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 area cannot be trafficked until the grass has fully established, typically 8 weeks during the growing season.

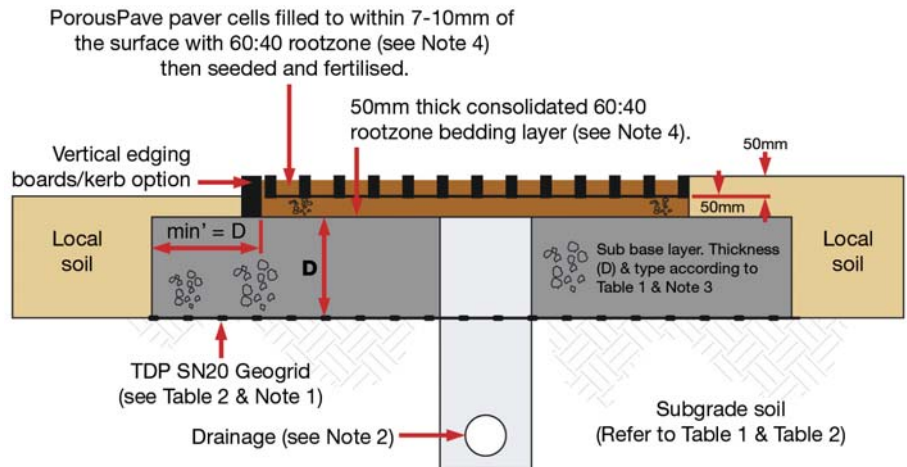
Note 1: If TDP SN20 geogrid is omitted, then the total sub base layer thickness must be increased by a minimum 50%.

Note 2: 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 stone, covered or wrapped with a 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 by specifier based on specific ground conditions on site.

Note 3: A 'DoT Type 1' sub base may be used, provided that an adequate drainage system is installed, or alternatively a porous/open-graded (reduced fines) sub base layer, 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 suitable clean gravel binding layer, to avoid fine particles entering the sub base layer.

Note 4: Rootzone bedding and paver fill must be a free-draining, structurally sound proprietary 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 5: Maximum advised gradient for traffic applications is 12% (1:8) 7".



Paver type	PorousPave	
Specifications	Material	100% recycled plastic
	Paver unit size	330mm x 330mm x 40mm (9 per m ² , pre-connected)
	Nominal cell size	63mm x 63mm (internal) Approx 85% open area/m ²
	Weight	4.14kg/m ²
	Load bearing capacity	250 tonne/m ² (crush resistance)
	Connection type	'T' lugs and slots.
	Colour	Black
	Markers	White mouldings are available to identify areas such as parking bays and routes. These square inserts clip into the top of paver cells. 6 per continuous linear metre.
	Chemical resistance	Excellent
	UV resistance	High
Bedding layer	60:40 rootzone (see Note 4)	50 – 70mm thick bedding layer
Paver fill (seed bed)	60:40 rootzone (see Note 4)	40mm thick layer
Grass seed	35g/m ² amenity blend low maintenance seed.	
Fertiliser	Pre-seeding fertiliser mix followed up with appropriate spring or autumn fertiliser.	
Sub-base type	DoT Type 1 or a porous sub base	'D' thickness in mm (see Table 2 & Note 3)
Sub-base reinforcement	TDP SN20 geogrid (see Note 1 & Table 2)	

Table 2: Typical Sub-base Thickness (D) Requirements

Application/Load	CBR (%) strength of subgrade soil (see Table 1)	(D) DoT sub-base thickness (mm) (see Note 3)	TDP SN20 Geogrid (see Note 1)
Fire truck and occasional HGV access	> 6	125	SN20
	4 - 6	175	SN20
	2 - 4	275	SN20
	1 - 2	475	SN20
Light vehicle access and overspill car parking	> 6	100	SN20
	4 - 6	150	SN20
	2 - 4	225	SN20
	1 - 2	350	SN20

TDP PorousPave – Product Specification

TDP Code: PP40

Description:	TDP PorousPave is made up of 100% high quality recycled mixed waste plastics from post industrial and consumer use and where necessary selected process additives.	
Composition:	TDP PorousPave are composed of a proportion of LDPE (Low Density Polyethylene) HDPE (High Density Polyethylene), PP (Polypropylene) and other thermoplastic materials.	
Production Process:	The polymers are ground, mixed and fused under high temperatures and pressures into pressed moulds	
Finish:	The surface is evenly coloured and shows a textured structure.	
Properties:	<ul style="list-style-type: none">■ Maintenance free■ Durable■ UV resistant■ Dimensionally stable	<ul style="list-style-type: none">■ Non-rotting■ Environmentally friendly■ 100% recycled and recyclable■ Shock proof and flexible
Applications and suggested usage	General purpose domestic parking filling with gravel or grass filling; overflow parking; ground stabilisation for footpaths, golf courses, parking areas on airstrips, banks and ditches, paddocks and farms, high wear gateways, green roofs.	

The information contained herein is to the best of our knowledge accurate, but since the circumstances and conditions in which it may be used are beyond our control, we do not accept any liability for any loss or damage, however arising, which results directly or indirectly from the use of such information nor do we offer any warranty or immunity against patent infringement.



PorousPave Delineators

Simply push fit into the TDP PorousPave, before filling to create white lines, shapes and even words.

Manufactured from UV stabilised recycled plastic

Diameter	Height	Colour
60mm	45mm	White

Geotextile Fabrics & SN20 Geogrid are also available from TDP to complete your PorousPave installation.



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