



**Plaspave**  
**PERMI-8**  
PERMEABLE LANDSCAPING PRODUCTS

# *Permeable* PAVING

THE SUSTAINABLE APPROACH



# SUSTAINABLE URBAN DRAINAGE SYSTEMS

The combined effects of **CLIMATE CHANGE**, a **GROWING POPULATION** and **INCREASED URBANISATION** are likely to put increasing pressure on water and flood management. **CLIMATE CHANGE PREDICTIONS** are for changing precipitation patterns characterised by the more **EXTREME WEATHER** events of recent years which may become **MORE COMMON** and **MORE INTENSE**.



a sustainable and responsible approach to water management

Increased urbanisation and construction has resulted in the proliferation of impermeable roads, driveways, car parks and pedestrian schemes and has increased the likelihood of surface water flooding. It is widely acknowledged there are inadequacies in our conventional and often old fashioned urban storm water drainage systems. These can be overwhelmed by heavy, prolonged rainfalls and subsequent rainwater run off resulting in flooding.

The consequent urban disruption, environmental damage and cost will continue to increase if no action is taken to mitigate flood risks.

## reducing flood risks, enhancing water quality and helping the environment

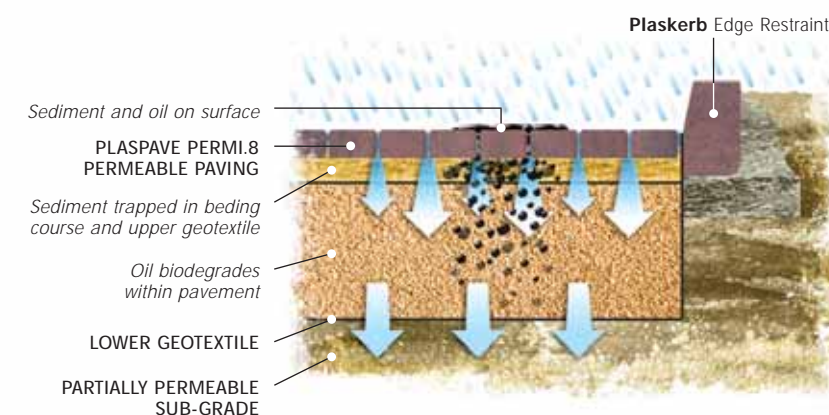
Adopting a sustainable and responsible approach to water management and drainage is now embedded in Government Regulation and Planning Guidance. The UK Government has introduced a requirement for Sustainable Urban Drainage Systems (SuDS), a design philosophy which uses a range of techniques to manage surface water by Attenuation and Filtration.

As a responsible manufacturer Plasmor has Sustainability and Environmental Protection at the core of our business ethos. In the pages that follow we explain how the **Plaspave Permi-8** range of permeable landscape products enables you to embrace the SuDS philosophy, satisfy the regulations and create visually appealing, long lasting and sustainable landscaping projects.

## SuDS is concerned with water flow and water quality

### WATER QUALITY

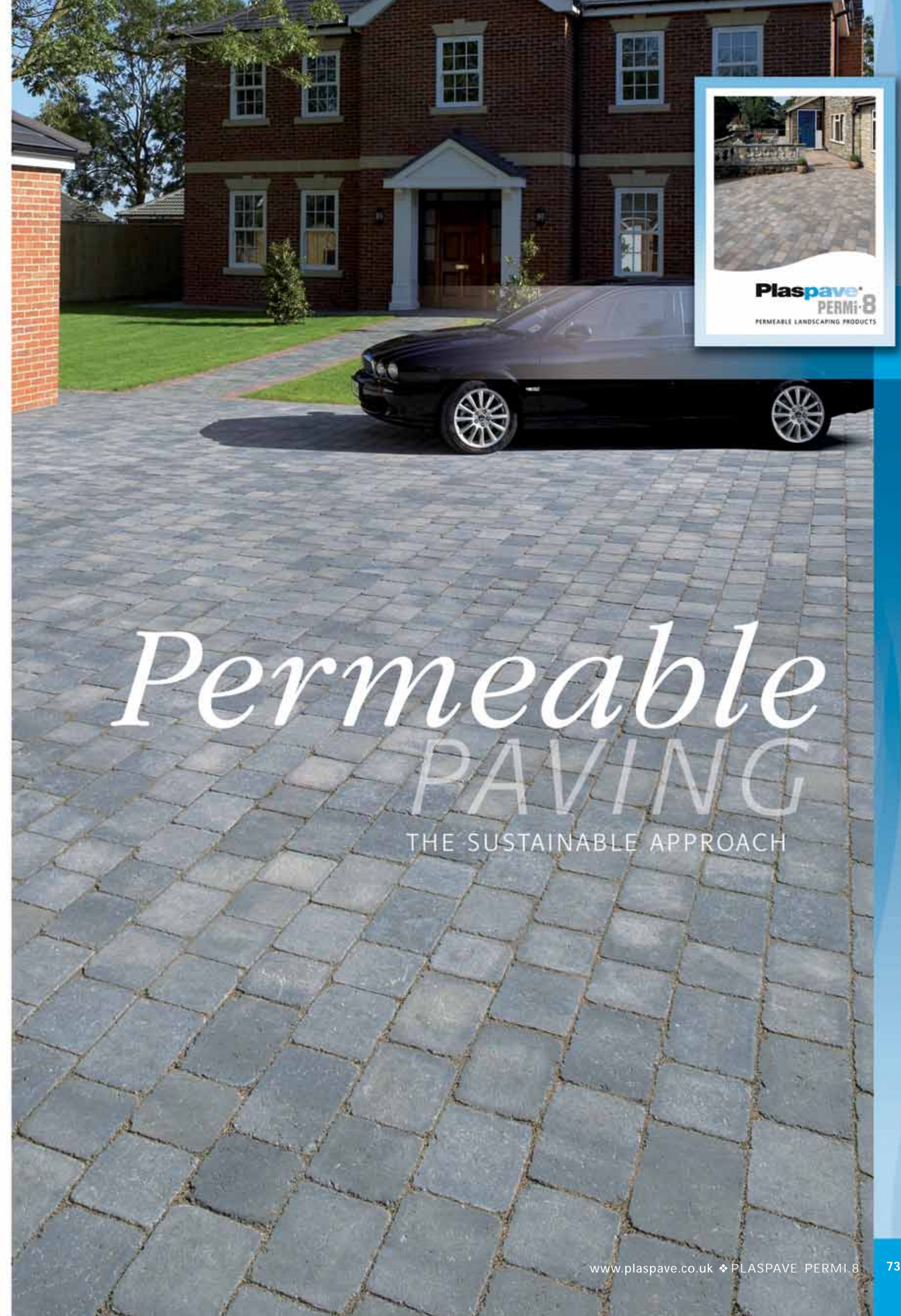
Hard surfaces in our urban landscapes collect pollution such as oil, petrol, tyre dust, brake dust, silts etc., which is washed off by rainwater into the underground drainage system. In excessive rainfall and surface water run off situations the drains become overwhelmed and the pollution runs off into rivers, streams and watercourses not only causing calamitous flooding but polluting and damaging wildlife and the wider environment.



### WATER FLOW

SuDS aims to deal with surface water close to where rainfall hits the ground by using "source control" techniques. Permeable paving is particularly suited to providing a durable, long-lasting, hard wearing landscaping surface atop a range of SuDS water management systems. Permeable paving is a well recognised source control technique because rainfall only flows over one single block before it is managed in the underlying permeable sub base.

Permeable block paving systems are very effective at removing pollution from run off. The pollutants are flushed into the underlying pavement layers where they are filtered and trapped or degraded over time which reduces downstream pollution and improves the local environment.



*Permeable*  
PAVING  
THE SUSTAINABLE APPROACH



# SUSTAINABLE URBAN DRAINAGE SYSTEMS



## GOVERNMENT LEGISLATION AND GUIDANCE

The Pitt Review, a government backed report which studied the 2007 summer floods, made various recommendations for new controls to paving and drainage of private gardens and driveways.

### THE 2008 FRONT GARDEN RULES

In September 2008, the Government signalled its intention, via the planning regulations, to restrict surface water run off from front gardens onto the highway.

The Department for Communities and Local Government and the Environment Agency published a document entitled "Guidance on the Permeable Surfacing of Front Gardens" which changed the permitted development rights of householders for the paving of front gardens. The document offers guidance and advice on the legislation to householders - [www.communities.gov.uk](http://www.communities.gov.uk).

*"From 1st October 2008 the permitted development rights that allow householders to pave their front gardens for hardstanding without planning permission has changed. Planning permission is now required to lay traditional impermeable driveways that allow uncontrolled run off of rainwater from front gardens onto roads, because this can contribute to flooding and pollution of watercourses."*

*"If a new driveway or parking area is constructed using permeable surfaces such as permeable block paving, porous asphalt or gravel, or if the water is otherwise able to soak into the ground, you WILL NOT require planning permission. The new rules will also apply where existing hard standings are being replaced. The new rules apply to hard surfaces exceeding five square metres in area."*

*'Guidance on the Permeable Surfacing of Front Gardens'*

### THE FLOOD WATER MANAGEMENT ACT 2010

A NEW ACT, covering England and Wales, was passed by the Government just before the 2010 general election and is expected to come into effect during 2012. The Act responds to further pressure to introduce legislation and addresses the threat of flooding and water scarcity. It effectively makes Sustainable Urban Drainage Systems (SuDS) mandatory.

Through a structured and cohesive approach to water management, Local Authorities are now required to develop flood risk management strategies and sustainable drainage systems in certain new developments. This is intended to manage and reduce the flow of surface water into the sewer systems and to improve water quality.

The Act will apply to any construction work including "ANYTHING THAT COVERS LAND (SUCH AS A PATIO OR OTHER SURFACE)" that will affect the ability of land to absorb rainwater, such as impermeable paving. It may apply to work that does not need planning permission, building regulation compliance or be exempted from "permitted development" SO IT WILL APPLY TO ANY PART OF THE PROPERTY, NOT JUST THE FRONT GARDEN.

'NEW NATIONAL STANDARDS FOR SuDS' are being prepared by the Department for Environment and Rural Affairs (DEFRA). Concurrently, Local Authorities have established 'SuDS APPROVING BODIES'. Construction work should not start until a sustainable drainage system has been approved in line with the new national standards. Then you will only be allowed to connect approved SuDS systems to public sewers. Applications for impermeable paving with rainwater running in pipes straight into public drains or streams may be rejected for not meeting new SuDS national standards.

There is however GOOD NEWS for HOUSEHOLDERS in that SOME OF THE SuDS SOLUTIONS DESCRIBED LATER WILL SIMPLY BE EXEMPT FROM THE ACT, for example, where rainwater can be managed, attenuated and dissipated within the boundaries of the property. THIS MEANS GOOD NEWS FOR HOUSEHOLDERS - YOU STILL HAVE A CHOICE OF TWO PAVING SYSTEMS: CONVENTIONAL OR PERMEABLE PAVING.



**Plaspave®**  
**PERMI-8**  
PERMEABLE LANDSCAPING PRODUCTS



Up to date information relating to the regulatory requirements, planning guidance and SuDS compliance is available from INTERPAVE at [www.paving.org.uk](http://www.paving.org.uk)

THIS ALL MEANS GOOD NEWS FOR HOUSEHOLDERS  
- you still have a **CHOICE** of two paving systems:  
**CONVENTIONAL OR PERMEABLE PAVING**



PERMEABLE PAVING is an intelligent approach to rainwater management around the home. Whilst retaining the well respected aesthetics, utility and durability of concrete block paving, permeable paving reduces the volume of surface water run off, slows down the rate at which rainwater enters the drainage system and will ultimately reduce flooding and pollution.

**PERMEABLE PAVING  
ALLOWS RAINWATER  
TO FILTER THROUGH  
LARGER GAPS  
BETWEEN THE BLOCKS**

The deeper, open-graded stone sub base on which the blocks are laid has sufficient reservoir space to store the rainwater underground preventing rapid surface water run off. The stored water may gradually soak into the ground, be collected for irrigation or harvested for re-use around the home for car washing or even toilet flushing.

## WHAT IS PERMEABLE PAVING AND HOW DOES IT WORK?

Permeable block paving has a dual role:

- PROVIDING A HARD SURFACE FOR TRAFFICKING
- PROVIDING THE DRAINAGE SYSTEM

**Plaspave®**  
**PERMI-8**  
PERMEABLE LANDSCAPING PRODUCTS



## STORMWATER SOLUTIONS FROM PLASPAVE

Plaspave has long been at the forefront of creative landscaping, offering home owners pavers that can transform their outdoor spaces. We have responded to the growing need for sustainable drainage by introducing a permeable option with all the attractions of texture, colour and design for which the Plaspave range is renowned - plus the added benefit of meeting the new legislation requiring

sustainable urban drainage systems. The revised partial spacer nib design on the blocks of Plaspave permeable products mean that as well as being highly functional, aesthetic and low-maintenance, they now also make a positive contribution to the environment.





## CHOICE OF TWO SYSTEMS PERMEABLE OR CONVENTIONAL:

Permeable Concrete Block Paving Systems are constructed differently to conventional impermeable paving systems. Both types of surface have a sub-base layer constructed strong enough to carry designated traffic loads without rutting.



### conventional block paving

Conventional paved surfaces use a sub-base material called hardcore or MOT Type 1 material which once compacted stops water passing through it easily. Wherever it is possible to provide rainwater run off from a driveway into a soak away or onto a rain garden contained within the boundary of a property then Conventional Block Paving may still be used without the need for planning permission. The comprehensive range of Plaspave landscaping products remain suitable for these applications.

*N.B. If a conventional impermeable surface is required and run off onto the road cannot be controlled then a planning application will be required which will incur additional costs and may or may not be granted.*

### permeable block paving

Permeable paving surfaces require a different sub-base material that allows water to pass through and also store the water until it can eventually be dissipated by various methods. If rainwater run off cannot be controlled, Permeable Block Paving can be used to construct an appropriate permeable paving system. The sub-base aggregates are 4mm-20mm MOT Type 3 sub-base, crushed, clean and open graded pieces of stone that have spaces between to store water. The laying course and joint filling material is 2mm-6mm angular, crushed, clean gravel as conventional jointing sand is not suitable as a medium for surface water to pass through the paving systems. The Plaspave Permi-8 range of permeable landscaping products provides a comprehensive product choice for these applications.

**SURFACE WATER** from conventional block paved driveways can be directed onto a border, rain garden, lawn or a soakaway. This is achieved by creating an average slope or fall of 50mm towards the rain garden chosen rather than using traditional gullies and drains leading to sewers. The driveway should be sloped away from the house and rain gardens and soakaways positioned at least 3 metres distance from buildings.

### Method One

## Conventional Block Paving and Rain Gardens

**Rain gardens** are created by forming a depression to allow the collected water enough time to soak into the subgrade. Rain gardens with appropriate planting offer the extra benefit of attractive and robust green spaces. Complimentary gravel or cobbles can be used as decorative features around the plants to reduce the evaporation of water. Rain gardens should not have mulch on the surface as this will float when water collects on it. Concrete dish channel blocks can help to collect and direct the water towards the rain garden.

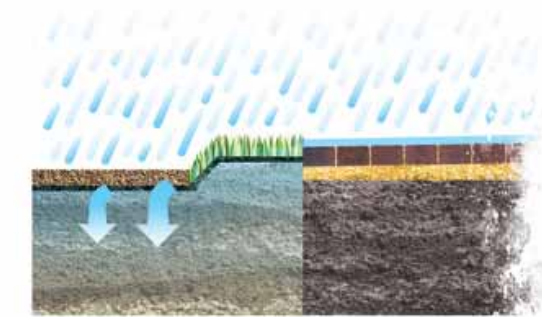
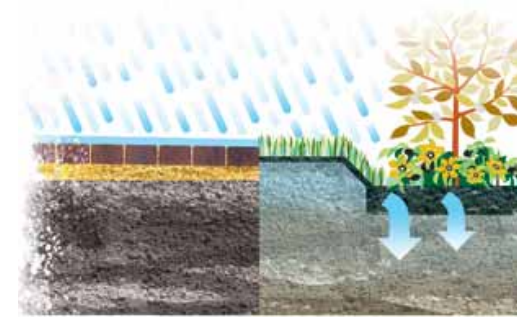


Where ground conditions demand, such as in clay soils, rain gardens can have stone filled trenches below them to increase the storage capacity and allow water to soak into the ground more easily.

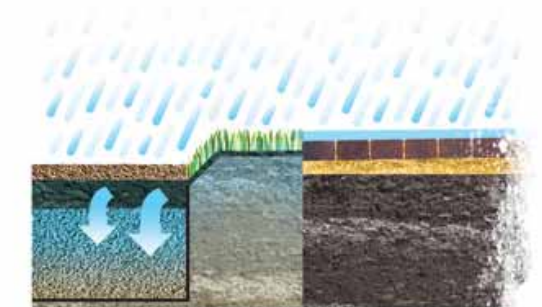
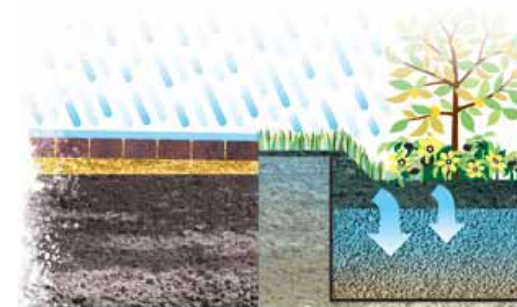
**Soakaways** are a similar idea except that water is piped into an underground chamber or gravel filled trench and allowed to soak into the ground. Soakaways can be located along the edges of conventional block paved driveways or beneath the garden area adjoining. Water is collected here and allowed to soak into the subgrade. On clay soils, it may be necessary to connect to the house roof water drain. The aggregate used for the soakaway must have open voids in it and no fine material. Water should flow freely into it.

There is also potential to direct water from rain gardens to the urban drainage system (permission may be required) or to rainwater harvesting for re-use. As a rule of thumb, a pipe will be required if it takes a water filled 300mm x 300mm x 300mm pit more than 11 hours to empty.

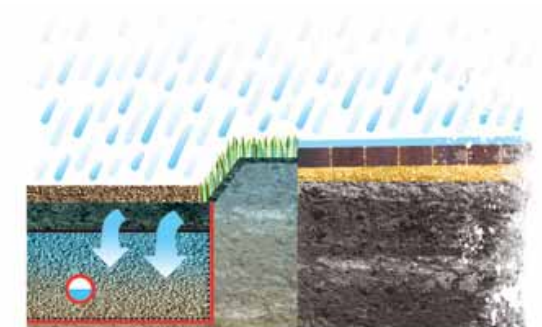
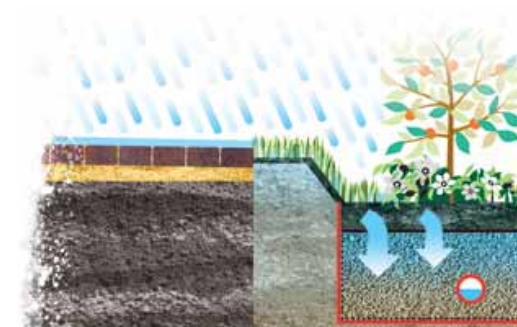
*Please note - Water should never be directed to a neighbours garden or property*



Rain garden or gravelled area with **INFILTRATION** into the ground



Rain garden or gravelled area with **TRENCH INFILTRATION** into the ground



Rain garden or gravelled area with **TRENCH AND PIPE TO DRAIN AWAY** or for **WATER HARVESTING**



Water from conventional driveways is directed onto a rain garden



Infiltration paving systems using **PERMI.8 CONCRETE BLOCK PAVING** are a supremely effective drainage system used in conjunction with permeable sub-bases and sub-grades. The individual permeable concrete blocks employ larger and non-conventional spacer nibs on the sides of individual blocks so that the surface water infiltrates through to the layers below.

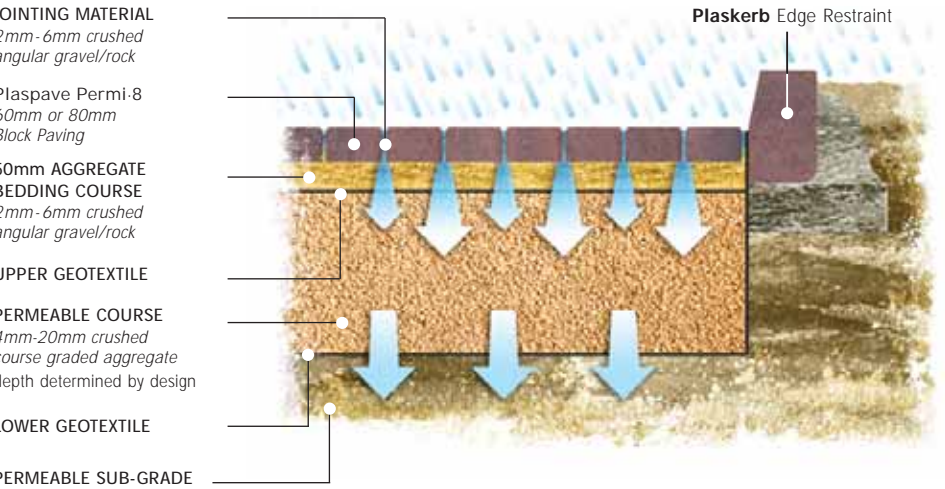
Method Two

Permeable Block Paving and Total Infiltration



The open, graded sub-base materials and geotextile layers must still be compacted in the same way as an impermeable paving sub-base to provide a firm foundation for the paving system to be trafficked, but will have voids between the pieces of stone. This system allows all rainwater falling onto the paved area to infiltrate down through the joints or voids between the blocks, passing through the constructed layers below and eventually into the sub-grade. The temporary reservoir created by the 33% void ratio of the sub-base may store some of the water before it eventually infiltrates the sub-grade.

This 'Zero Drainage' system requires no discharge into traditional drainage systems, removing the need for pipes and gulleys resulting in cost savings.



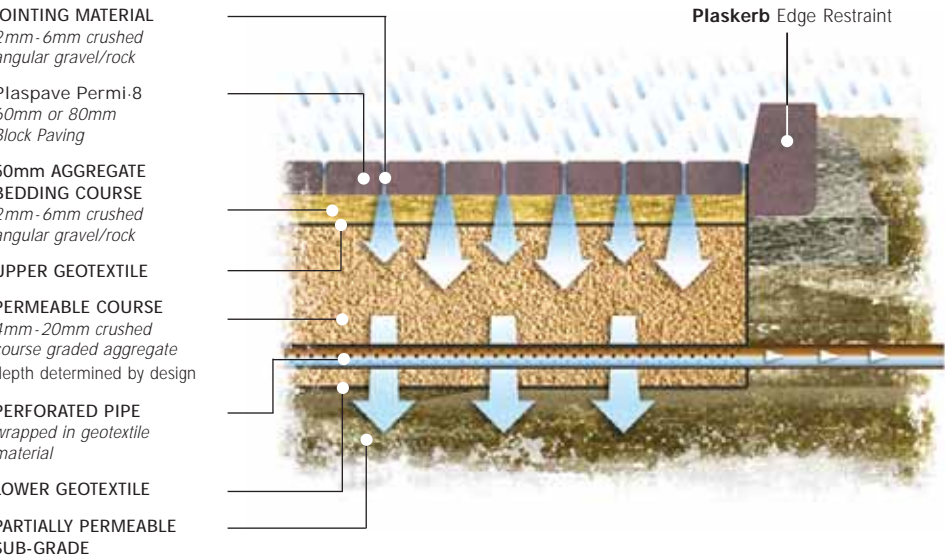
Method Three

Permeable Block Paving and Partial Infiltration



Similar to Method Two, **PARTIAL INFILTRATION SYSTEMS** may be used in situations where the existing sub-grade may not be capable of absorbing all the water. This system can, therefore, prevent the sub-grade from becoming water logged and losing its stability. In this system Permi.8 paving sits on top of a permeable sub-base which surrounds a perforated outlet pipe which allows the excess water to be drained to other drainage outlets such as sewers, swales or watercourses.

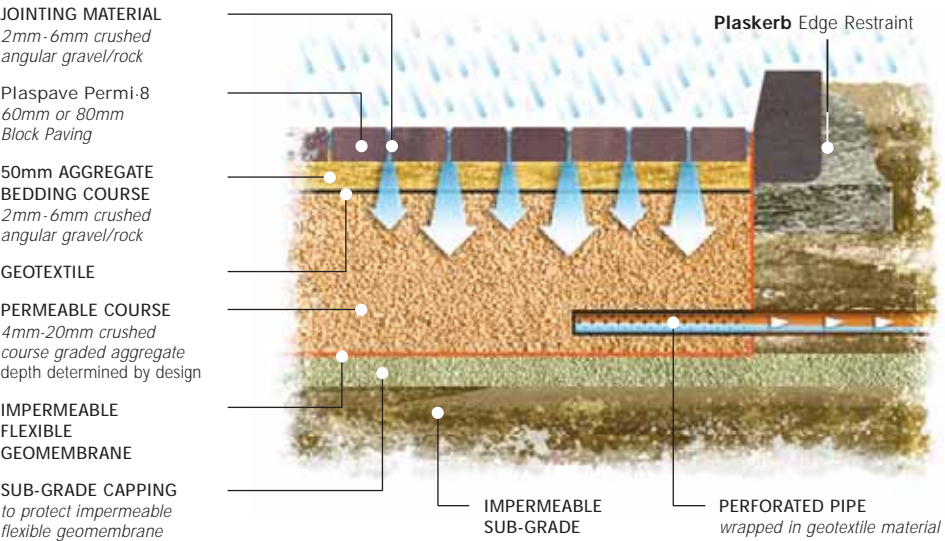
Whilst a high proportion of the rainfall is allowed to infiltrate through the system into the sub-grade, the excess is discharged with a peak discharge rate that is agreed with the Local Authority or Environmental Agency.



The **NON INFILTRATION/TANKED PAVING SYSTEM** is employed in situations where the existing sub-grade has low permeability such as a heavy clay soil where there is little opportunity for infiltration. It is also used where the sub-grade is of low strength and liable to damage by the introduction of additional water.

Method Four

Permeable Block Paving and Non Infiltration or Tanked Systems



This system allows for the complete capture of all the water falling on the paved area. This is achieved by placing an impermeable flexible geomembrane on top of the sub-grade and up the sides of the permeable sub-base to effectively create an underground tanked reservoir. Non-Infiltration/Tanked paving systems are particularly suitable for contaminated sites as it prevents pollutants from infiltrating the sub-grade from where they are eventually washed into the groundwater.

The stored water can also be re-used for not-potable purposes such as irrigation, car washing or toilet flushing.

(See Method Six - Rainwater Harvesting).

Pipe Outlets and Outflow

Pipe outlets from Non-Infiltration or Tanked paving systems penetrate the impermeable flexible membrane. To ensure watertight connection, proprietary 'top-hat' seal systems should be employed. Non-Infiltration/Tanked paving system design assumes that the system outflow rate is restricted to the accepted 'Greenfield' run off rate of 5 - 7 litres/sec/hectare. This minimises the impact on drainage networks and water courses during storm events. This discharge rate can be accommodated using a 100mm diameter pipe with the flow restricted by proprietary flow control systems. The spacing and location of outlet pipes will be dictated by site layout and available points of discharge.

Outlets to the urban drainage system may need permission from the Local Authority/ Environment Agency.

Capping Layer

For Non-Infiltration/Tanked paving systems, it is necessary to lay a layer of capping material below the impermeable flexible geomembrane to provide a firm working platform for the overlying construction layers. Two types of capping material are recommended for use in the Specification for Highway Works (2007), 6F1 (finer material) and 6F2 (coarser material). If 6F2 material is used it will be necessary to blind the surface with fine material to prevent puncturing the impermeable geomembrane.



**GEOTEXTILE** is a permeable fabric which filters the water passing through and stops any migration of the bedding course into the sub-base. In the 'tanked' system **GEOMEMBRANE** is used underground to minimise the loss of water.



In situations where increased water storage capacity or shallower sub-bases are demanded, **PERMEABLE SUB-BASE REPLACEMENT SYSTEMS** can be incorporated into permeable paving systems. These proprietary sub-base systems consist of geocellular boxes made of lattice plastic crate-like structures which are connected together to form a rigid raft structure that replaces some or all of the permeable sub-base depending on traffic loading.

### Method Five

## Permeable Block Paving and Permeable Sub-base Replacement Systems

The water storage capacity is higher than with conventional granular aggregate sub-bases, with some void ratios of up to 90%. Consequently the overall depth of construction can be reduced resulting in shallower excavation and reduced material disposal to landfill. This type of system typically incorporates a Rainwater Harvesting facility.

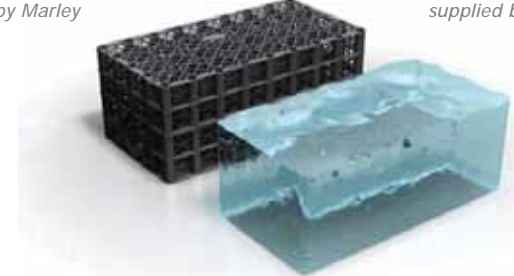
*Specialist design advice is available from manufacturers of the cellular units.*



Waterloc 250 Cellular Units  
supplied by Marley



Polystorm Cellular Units  
supplied by Polypipe



### Distinctive Finishing Touches

COMO COBBLESTONES are an ideal way of adding extra texture and detail to the edging on driveways and paths.

PLASKERB edge restraints help to support traffic loads, contain lateral movement and are available in large and small kerbs and as a Weathered Kerb shown here.

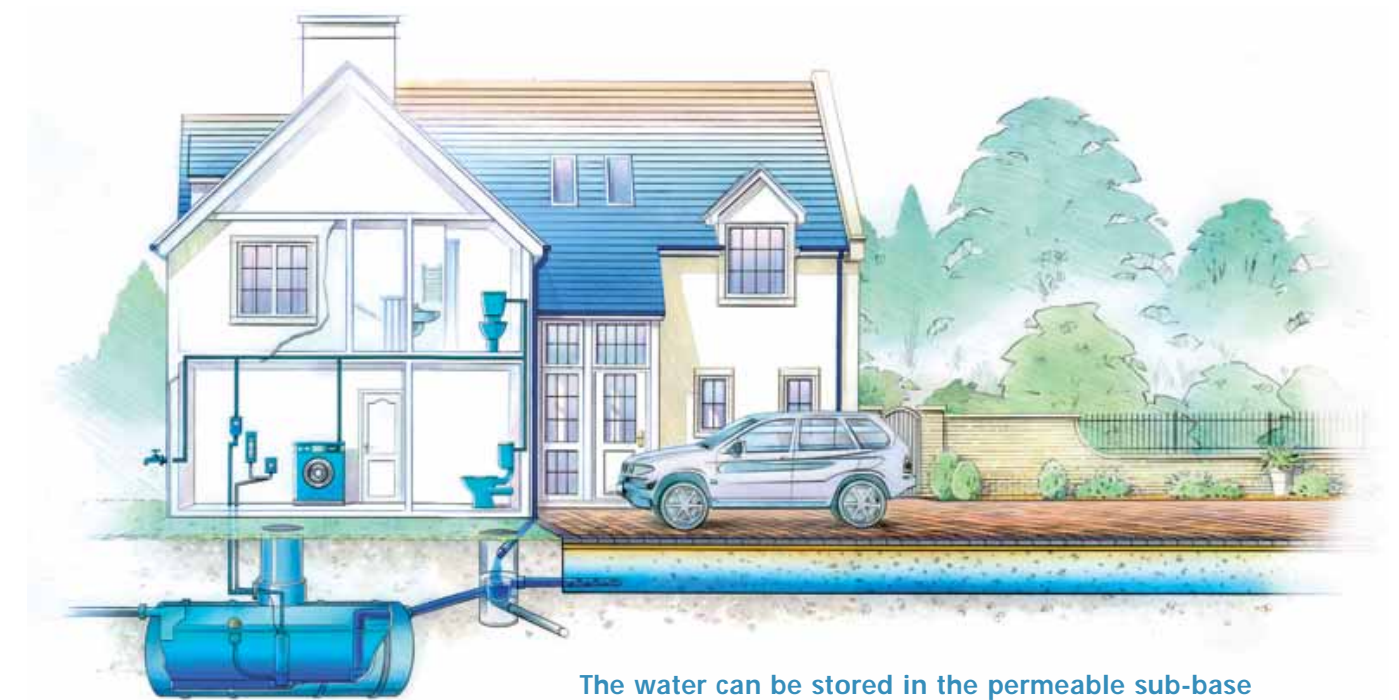
*See pages 70-71 for further information on the full range of Plaspave Kerbs and Accessories*



**RAINWATER HARVESTING** is the collecting of rainwater from roofs and the underground tanked systems of permeable paving to use in or around buildings for non potable purposes such as watering the garden, car washing or toilet flushing. The run off water used for harvesting needs to be of reasonable quality and should be free of debris and sediments. Permeable paving systems will provide the filtration to achieve this.

### Method Six

## Permeable Block Paving and Rainwater Harvesting



The water can be stored in the permeable sub-base of a permeable paving system.

It is however very important to note that the storage volume for re-use is normally separate to that for rainfall attenuation. This is because the two types of storage have different requirements.

- **Rainwater re-use** - must be full for as much of the time as possible so that water is available for use.
- **Stormwater attenuation** - must be empty most of the time so that it can temporarily store water from rainfall events.

Rainwater Harvesting systems will usually have an overflow or pipe outlet to a soak away or to the urban drainage system. The outlet principles for Non-Infiltration/ Tanked systems shall apply. Rainwater Harvesting will not only reduce rainwater run off into the drainage system but will also reduce the amount of mains water used. This contributes to water efficiency and provides savings on water bills if using metered water.

*Advice is available from the UK Rainwater Harvesting Association - [www.ukrha.org](http://www.ukrha.org)*

### Where can I find further information about permeable paving systems?

For up to date information on the current regulations for hard landscaping in front gardens, visit:-

[www.planningportal.gov.uk/house](http://www.planningportal.gov.uk/house)  
[www.paving.org.uk](http://www.paving.org.uk)  
[www.environmental-agency.gov.uk](http://www.environmental-agency.gov.uk)  
[www.defra.gov.uk](http://www.defra.gov.uk)  
[www.sudsource.org](http://www.sudsource.org)

For information on block paving contractors, visit:-

[www.bali.co.uk](http://www.bali.co.uk)  
[www.interlay.org.uk](http://www.interlay.org.uk)  
 or visit [www.plaspave.co.uk](http://www.plaspave.co.uk) for a complete list of information websites





The drive for INDIVIDUALITY, CHARACTER and SUSTAINABILITY



**SORRENTO Permi.8** is the permeable version of the best-selling Sorrento range - a three piece stone-look sett presented in three sizes per pack. Winning features of large element size, three subtle colourways, random laying pattern and a quarry fettled, tumbled appearance are all complemented by permeability for sustainable character.

*Turn to Page 92 for colourways and pack information*

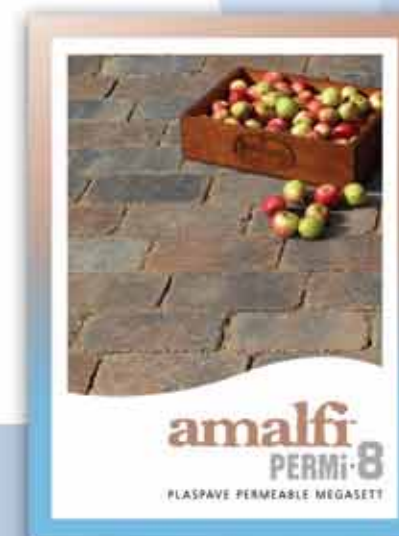
*permeable paving controls the release of surface water to the natural environment*

*Left:*  
Sorrento Permi-8  
SARSEN STONE

*Inset:*  
Sorrento Permi-8  
CARRARA STONE



Blending COLOUR with INTELLIGENT DRAINAGE



The warm rich, stone effect tones of **AMALFI Permi-8** single piece tumbled setts - whether in Carrara Stone, Granite Stone or Brunello shown here - offer a colourful approach to any home. Fast laying rates and unusual patterning add to the appeal of this permeable paving option. The 80mm thickness of **AMALFI Permi-8** provides enhanced interlocking and suitability for larger drives with repetitive vehicle turning and roadway or commercial applications.

*Turn to Page 92 for colourways and pack information*

*permeable paving offers environmental advantages such as natural breakdown of pollutants*

*Left: Amalfi Permi-8  
BRUNELLO*



Sustainability that is **STYLISH** and **SOPHISTICATED**



Clean sharp lines and the marble brindle effect distinguish **MODENA Permi.8** giving these classic setts a modern style and sophistication ideal for contemporary outdoor areas.

The mini-chamfers create a permeable, smooth surface that lets water infiltrate slowly back into the ground below

*Turn to Page 93 for colourways and pack information*

*permeable paving that infiltrates water back into the ground can reduce the volume of water entering the underground drainage system by up to 80%*

*Left: Modena Permi-8  
RUSTIC GOLD*





Breathtakingly INDIVIDUAL and ENVIRONMENTALLY SOUND



**MONOPOLI Permi.8** is a single piece stone-look effect cobble sett with a riven surface. Available in a choice of four colourways, it is quick and easy to lay and offers flexibility of patterning with extra spacer nibs enhancing interlocking and ensuring effective rainfall management.

*Turn to Page 93 for colourways and pack information*

*permeable paving  
recharges ground water  
levels where water can  
infiltrate back into  
the ground*

*Left: Monopoli Permi-8  
BURNT BRACKEN*





**PLASPAVE SIXTY PERMI-8**  
PLASPAVE PERMEABLE MEGASET

#### PLASPAVE SIXTY Permi.8

classic rectangular block paving is available in three colourways to enhance and harmonise with most gardens and architecture.

Quickly and easily laid, it offers dimensional stability and proven durability, as well as environmental benefits

*Turn to Page 94 for colourways and pack information*

**FLEXIBLE and DURABLE**  
whatever the weather

*permeable paving systems can allow rainwater to be stored and harvested for irrigation*

*Right : Plaspave Sixty Permi-8  
RUSTIC GOLD*



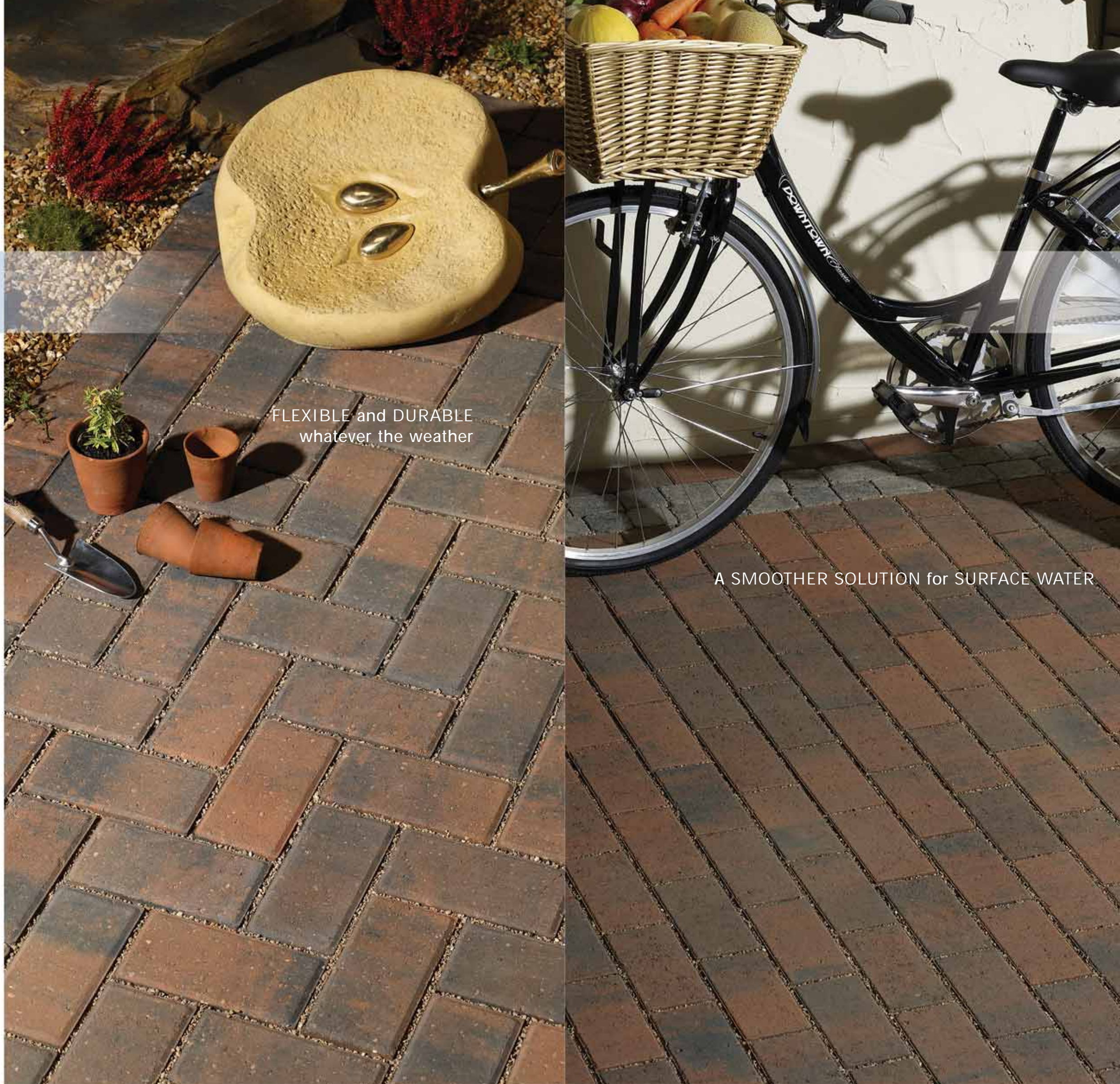
**PLASLINE PERMI-8**  
PERMEABLE MINI CHAMFERED PLASPAVE

Designed for access ways that must cope with frequent traffic from motorised and other vehicles, **PLASLINE Permi.8** mini-chamfered blocks produce a smooth running, aesthetically pleasing, stylish yet permeable surface. **PLASLINE Permi.8** is particularly suitable for landscaped environments where wheelchair, children's toys or shopping trolley traffic is experienced.

*Turn to Page 94 for colourways and pack information*

*permeable paving is a robust, environmentally sound drainage system requiring little maintenance.*

*Left: Plasline Permi-8  
TRADITIONAL BRINDLE*



**A SMOOTHER SOLUTION for SURFACE WATER**



## SORRENTO PERMI-8

PLASPAVE PERMEABLE TUMBLED SETTS

*SORRENTO PERMI-8, the permeable version of our highly popular Sorrento range, combines superb stone-look aesthetics and colourful versatility with environmental features essential for reducing flood risks.*



**Sorrento Permi.8**  
- elegant, colourful and better for the environment



### BLOCK DIMENSIONS

Thickness	60mm
Size	LARGE 240mm x 160mm
	MEDIUM 200mm x 160mm
	SMALL 160mm x 160mm

### PACK INFORMATION

Average pack contents	
LARGE units	77
MEDIUM units	77
SMALL units	77
Pack coverage	7.35m <sup>2</sup>
Pack weight	1000kg



### BLOCK DIMENSIONS

Thickness	60mm
Size	LARGE 240mm x 160mm
	MEDIUM 200mm x 160mm
	SMALL 160mm x 160mm

### PACK INFORMATION

Average pack contents	
LARGE units	80
MEDIUM units	80
SMALL units	80
Pack coverage	7.68m <sup>2</sup>
Pack weight	1020kg

## modena PERMI-8

PERMEABLE PLASPAVE CONTEMPORARY SETTS

*The large element size of MODENA Permi.8 highlights the contemporary marble brindle effect and the smooth mini-chamfered surface make it an ideal choice for driveways and play areas.*



**Modena Permi.8**  
- permeable yet clearly contemporary

## amalfi PERMI-8

PLASPAVE PERMEABLE MEGASETT

*The quarry fettled edges of AMALFI Permi.8 combined with attractive stone-effect colourways create an approach that is warm, welcoming and permeable.*

### BLOCK DIMENSIONS

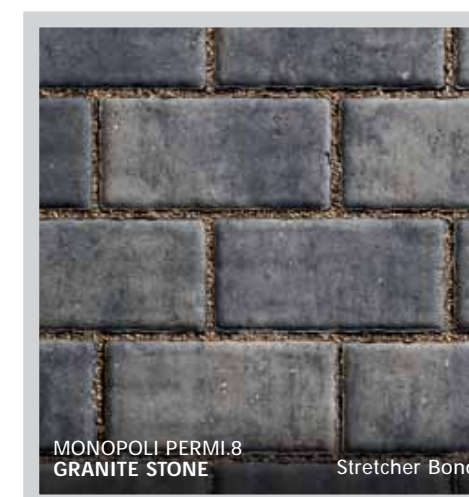
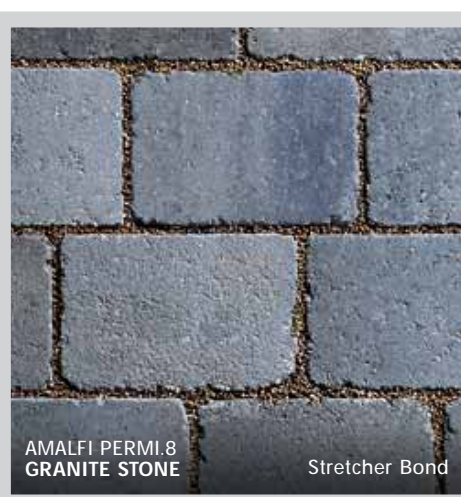
Thickness	80mm
Size	240mm x 160mm

### PACK INFORMATION

Pack contents units	150
Pack coverage	5.76m <sup>2</sup>
Pack weight	990kg



**Amalfi Permi.8**  
an 80mm permeable Megasett ideal for larger driveways



## Monopoli PERMI-8

PLASPAVE PERMEABLE SOLOSETT

*The four brindle colours of MONOPOLI Permi.8 and its distinctive riven surface make this single piece sett a permeable option for flexible patterning effects.*

### BLOCK DIMENSIONS

Thickness	60mm
Size	240mm x 120mm

### PACK INFORMATION

Pack contents units	198
Pack coverage	5.70m <sup>2</sup>
Pack weight	750kg



**Monopoli Permi.8**  
- a distinctive stone-look permeable Solosett





PLASPAVE SIXTY Permi.8 block paving is designed to complement both modern and traditional architecture. This durable block can be laid quickly, offering permeability and well proven reliable dimensional accuracy.

#### BLOCK DIMENSIONS

Thickness	60mm
Size	200mm x 100mm

#### PACK INFORMATION

Pack contents units	360
Pack coverage	7.20m <sup>2</sup>
Pack weight	970kg



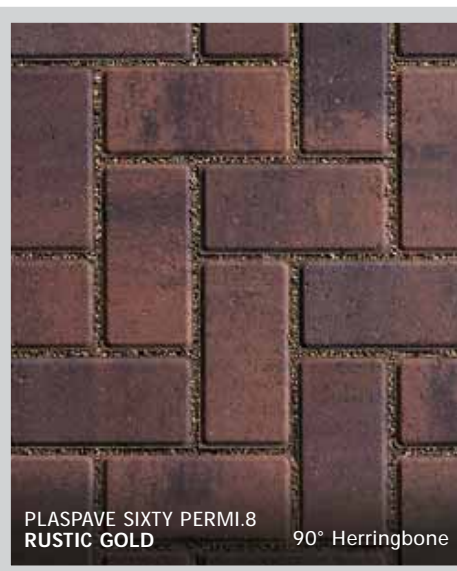
Plaspave Sixty Permi.8 - permeable paving that is quick and easy to lay



PLASPAVE SIXTY PERMI.8 TRADITIONAL BRINDLE 45° Herringbone



PLASPAVE SIXTY PERMI.8 RED 90° Herringbone



PLASPAVE SIXTY PERMI.8 RUSTIC GOLD 90° Herringbone



## PLASLINE PERMI.8

PERMEABLE MINI CHAMFERED PLASPAVE

PLASLINE Permi.8 is the recognised environmentally friendly option for any surface subjected to regular vehicular traffic. Its minimal chamfers virtually eliminates a bumpy ride and minimises moss growth for easy maintenance.

#### BLOCK DIMENSIONS

Thickness	80mm
Size	200mm x 100mm

#### PACK INFORMATION

Pack contents units	296
Pack coverage	5.92m <sup>2</sup>
Pack weight	1070kg



PLASLINE PERMI.8 TRADITIONAL BRINDLE 45° Herringbone



Plasline Permi.8 - mini-chamfered permeable paving for an environmental smoother finish

## IMPORTANT READING FOR PAVING CONTRACTORS AND DOMESTIC CUSTOMERS

### CHOOSING A COLOUR

The colours in this brochure are as accurate as reprographic and four colour printing processes allow. To assist you in making a colour choice there is a Plaspave Colour Swatch which represents each colour in patterns of actual size products. Ask your contractor to show you this swatch. **WHEN FINALLY DECIDING ON COLOURS, IT IS RECOMMENDED THAT CUSTOMERS SEE SAMPLES.** One of the positive benefits of Plaspave is that colours will appear to change very slightly in different levels of light.

You will notice a difference between bright sunlight, summer and winter light, wet and dry. It should also be noted that while every effort is made to ensure the consistency of product colour and texture across batches and between factories some slight variation is possible. Please ensure you order all the packs you require so that they can be supplied from the same batch. Paving contractors should follow best laying practice - mixing product on the site from a minimum of three packs.

### WHITE STAINING ON THE SURFACE OF THE PRODUCT

Plaspave product ingredient mixes combined with modern, sophisticated curing technology contribute to reduce the incidence of efflorescence. However, all Concrete Products have a tendency to be subject to efflorescence staining in their early life. This is a naturally occurring phenomenon which should not be regarded as cause for concern. Efflorescence is not detrimental to the performance of the pavers and is usually a temporary condition which tends to disappear with weathering over a period of time.

### FITNESS FOR PURPOSE

All products featured in this brochure are intended for residential/domestic use either as footpaths, patios or driveway/parking areas for cars and light vans. The manufacturer cannot be responsible for the loss of driveway integrity or paver damage resulting from overrun by trade vehicles, large vans, trucks, skips and similar heavy traffic. All Plaspave Concrete Block Paving products are manufactured by companies in the Plasmor Group under Quality Assurance BS EN ISO 9001:2000. Plasmor expects the paving contractors and householder to inspect packs of product prior to laying and in the unlikely event that any pack of product reaches you in an unsatisfactory condition, the Merchant Retailer should be notified immediately. **It is important to identify any defect that is visually apparent prior to laying as the manufacturer cannot be responsible for costs of uplifting and relaying.** All products supplied by Plasmor Limited are subject to standard Plasmor Conditions of Sale which outline the extent of our Manufacturer's liability.



### LAYING ADVICE

Please ensure you order all the packs you require so that they can be supplied from the same batch. Paving contractors should follow best laying practice - mixing product on the site from a minimum of three packs. Products such as Sorrento and Amalfi are rumbled during manufacturing and this process may leave a dusty residue on the surface of some pavers. This will weather in and be removed over time by rainfall - alternatively it could be removed more quickly by the application of a patio cleaner. This unavoidable residue, although it may be considered unsightly, will in no way affect the performance of the paving. Despite being randomly packaged in the pack, it may not be immediately obvious that Sorrento and Amalfi have a top and bottom - it is important to lay all blocks top upwards! The top face has deeper colours and superior texture.

The spacer nibs are designed to work correctly only when all product is laid "top upwards". Please take a moment to familiarise yourself with the product and observe the positioning of the vertical spacer nibs.

**SORRENTO & AMALFI** - TO IDENTIFY THE TOP - With a right hand grip, the forward facing right hand side of the block should have the spacer-nib 25mm from the front edge. If the spacer nib is 50mm from the front edge then the block is upside down. It will soon become obvious that the visual appeal of the project is improved when all blocks are correctly laid top upwards.

**PALERMO** - When laying Palermo you need to protect the wacker plate with a rubber or neoprene mat to protect the riven surface of the paving. A generous covering of jointing sand will also help to protect the surface.

### ERRORS, OMISSIONS AND CHANGES

Every effort has been made to ensure the accuracy of the information provided in this brochure but it is published errors and omissions excepted. No part of the brochure constitutes part of an actual or implied contract. Plasmor's Standard Terms and Conditions apply. Colours, textures, dimensions, weights are subject to manufacturing tolerances and the specification and availability of product ranges and colours may be subject to change without prior notice.

For further information contact one of the Plasmor Limited regional telephone numbers:

**EASTERN ENGLAND:**  
**01977 673221**

**WESTERN ENGLAND:**  
**0151 423 1161**

or visit our website where you'll find our Galleria of inspirational homes and gardens, design hints and tips, block laying patterns, diy information and contractor or stockist details:

**TRADE VISITOR**  
[www.plasmor.co.uk](http://www.plasmor.co.uk)

**HOMEWOWNER:**  
[www.plaspave.co.uk](http://www.plaspave.co.uk)